DOCUMENT RESUME

ED 100 875 88 SP 008 791

TITLE	Basic Skills; ESEA Title III Projects in the Nation's Schools.
INSTITUTION	George Washington Univ., Washington, D. C. National Advisory Council on Supplementary Centers and Services.
SPONS AGENCY	Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.
PUB DATE	74
NOTE	43p.
JOURNAL CIT	The Title III Quarterly; Fall 1974
EDRS PRICE	MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS	*Basic Skills; Curriculum; *Effective Teaching; Instructional Media; *Learning; Mathematics; *Projects; Reading; Student Motivation; *Teaching Methods
IDENTIFIERS	*Elementary Secondary Education Act Title III; ESEA Title III

ABSTRACT

This report describes 10 projects that deal with effective and efficient methods of teaching and learning. "Communication Skills Improvement for Junior High Students" has three objectives: (a) to build increased interest in reading, (b) to provide assistance in developing reading skills, and (c) to provide teachers with various aids to improve reading proficiency in content areas. "Basic Skills-Oriented Learning Packages" is a project that developed learning packages to facilitate the learning and teaching of basic skills. The project "Individualized Strategy in Early Childhood Education" developed basic processes for learning at an early age. Three projects, "Summer Television Arithmetic and Reading," "A Thematic Approach to Reading Utilizing Library Media," and "Project Media Literacy: From Theory to Realism," see media as a means of improving student interest and motivation in the acquisition of basic skills. The latter project provides a curriculum designed to help students become discriminating readers and viewers while learning basic skills. "Espanola Reading Centers," concentrates on improving reading achievement scores. "Program for Low Achievers in Math" uses real-life tools and experiences to motivate students. The "Comprehensive Client-Oriented Basic Skills Center" project views teacher/staff development as an essential component of a successful program. The "Intensive Elementary Language Arts Program" follows the theory that if a student learns to read well in his early grades, he will meet with greater success in later grades. (PS)

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The Title III Quarterly Fall 1974

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Basic Skills ESEA Title III Projects in the Nation's Schools

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Basic Skills
ESEA Title III Projects
in the Nation's Schools

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Each issue of *The Title III Quarterly* focuses on projects funded under Title III of the Elementary and Secondary Education Act. In keeping with Title III's main directive — to fund innovative projects — the National Advisory Council on Supplementary Centers and Services investigates in the quarterlies how well the projects are meeting the challenge of finding innovative solutions to their educational problems. Costs of this publication were satisfied under ESEA Title III. Views expressed herein do not necessarily reflect the policy of the U.S. Office of Education. Additional information concerning specific projects may be requested from the project directors.

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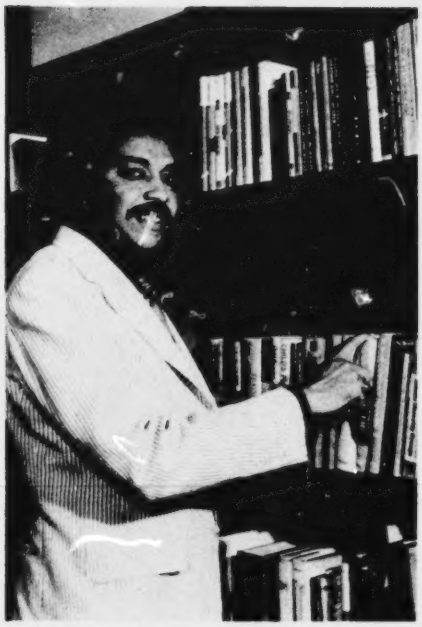
Foreword



William R. Harvey
Member, National Advisory Council

What is the basis of a "good education?" The answer to this question is inevitably and necessarily a strong foundation in basic skills.

The Title III projects described in this *Quarterly* represent effective and efficient methods of teaching and learning those basic skills considered to be essential for continuous and successful progress through our educational system. Some of the projects deal with a specific skill and some deal with all the basic skills—reading, mathematics and communication skills.

An overview of the 210 basic skills projects listed at the back of the *Quarterly* shows that the largest percentage are in the area of reading. At a time when higher educational institutions are faced with alarmingly high numbers of students with poor reading ability, it is appropriate that emphasis be placed on discovering innovative techniques in this critical area. The list also testifies to many new approaches designed to correct language arts and mathematics deficiencies.

The question then arises as to the effectiveness and impact of the solutions which these projects present. If these solutions are valid, prove to be innovative, cost/effective and worthy of consideration for adoption/adaption by other school systems, the validation and dissemination/diffusion processes (IVD) of Title III will provide the educational community with viable alternatives.

So, with the help of Title III funds, school systems have been able to implement these innovative programs designed either to improve student achievement in basic skills or to maintain or further increase existing standards of achievement. Most of the basic skills projects focus to some degree on four basic areas of importance: the role of the teacher/tutor, individualized instruction, motivation and parental involvement. The extent to which an individual project emphasizes any or all of these areas relates to the different approaches to solving specific problems. One project discussed in this issue attempts to make up for achievement loss during the summer by providing television workshops, while two other projects' goals are to initiate basic skills proficiency in early childhood and elementary classrooms.

Three projects see media as a means by which to improve student interest and motivation in the acquisition of basic skills. One of these, "Project Media Literacy," provides a curriculum designed to help students become discriminant readers and viewers while learning the basic skills.

A West Virginia project developed learning packages to facilitate the learning and teaching of the basic skills and an Iowa project views teacher/staff development as an essential component of a successful program.

Two projects, "Espanola Reading Centers" and "Communication Skills Improvement for Junior High Students," concentrate on improving reading achievement scores but use two different methods. The "Program for Low Achievers in Math" sees real-life tools and experiences as being the answer to motivating students who are "turned off" by the regular mathematics curriculum.

The articles in this *Quarterly* reflect a concern and an effort on the part of many educators to insure that students firmly grasp the fundamentals of learning: the basic skills. The soundness of the objectives of these projects made them eligible for Title III grants and, for those not yet validated, their success should assure continuation after Title III funding has terminated.

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Communication Skills Improvement For Junior High Students

An eighth-grade boy who admitted that he only tolerated school is amazed at the individual attention given to him and his school performance. A ninth-grade girl who has always been in remedial reading classes says that her confidence in herself has improved and that reading is becoming easier for her. A seventh-grade girl who has always been a good student expresses her excitement and pleasure over the wide variety of books available and the opportunities for creative writing that are now open to her.

These young people are a part of the student body of 800 at West Junior High School in Nampa, Idaho. A Title III Project, "Communication Skills Improvement Center," operates there with three objectives: to build increased interest in reading, to provide assistance in developing reading skills and to provide teachers with various aids in order to improve reading proficiency in content areas. These aids include inservice training, packaging and production of materials and provision of commercial materials.

Uninterrupted Sustained Silent Reading

A slogan developed for the project, "Every student a reader," has a second clause: "Every teacher an implementer of reading." Both parts come alive every afternoon when a musical tone signals the beginning of a fourteen-minute period of uninterrupted, sustained silent reading, known as "USSR" to students and staff. Patterned on a plan pioneered by Lyman C. Hunt, Jr. at the University of Vermont, this period has become a distinctive part of the day at West Junior High School. *Everyone reads.* In the classrooms, teachers and pupils cease regular class activities and read materials of their own choosing. In the office, the secretary provides magazines for anyone who may be there or who may come in. In the wood-working shop, even in the gymnasium, everyone reads.

The reading period could be easily implemented in other schools. Four elementary schools in the Nampa School District have already set up their own versions of USSR, tailored to fit their specific needs. In order to provide the time for this extra period, all other class periods were shortened by two minutes, thus creating a fourteen-minute time block for USSR. What to read during the period may pose a problem for some, but teacher and students can work it out together. At West Junior High School the emphasis is on reading for enjoyment; students who choose to read textbooks may do so if they wish. Magazines and paperbacks are checked out by teachers so that material is readily available for those who say, "I forgot to bring my book."

Staff Development Services

Most project activities generate in the resource center but, like USSR, they radiate to all parts of the school. Materials and equipment provided by the project have allowed teachers to develop new ways of teaching and have offered students new ways of learning.

The content area teachers play an important part in the total experience of communication at West Junior High. The hearty cooperation they give the silent reading period is only one expression of their support. Inservice training was provided with such national figures as Dr. Floyd Davis from the Seattle Public Schools, Dr. Nicholas Silvaroli from Arizona State University and Dr. Lilburn Wesche from

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This article was submitted by one of the project directors, Mrs. Erva J. Verner, West Junior High School, 808 Central Midland Boulevard, Nampa, Idaho 86531.

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Northwest Nazarene College in Nampa. Inservice given to content area teachers dealt with the many facets of the process students use to learn content.

Inservice minisessions, conducted by project personnel, were also held before school in the morning on a voluntary basis for teachers interested in learning techniques for implementing reading in content areas.

Since tapes and tape recorders with multiple earphones are popular with students, textbooks in all subject areas have been recorded on tapes by parents and high school students who serve the project as volunteer aides. Their "reading style" has made using the tapes a popular activity, hence there is no stigma attached to use of the tapes by slow students. This enables students of all ability levels to participate in class discussions and activities.

A preschool inservice session for language arts teachers has been provided each fall. Time has been allowed for them to plan and coordinate the many beneficial activities offered through the minicourses in the English department. The series of minicourses developed by the team of language arts teachers has provided students with a choice of topics that interest them and with small group activities which allow special help for slow learners without their being segregated or labeled. Videotaping encourages oral activities, and cameras in the hands of students make possible a wide range of visual literacy projects.

Clinical Assistance

Northwest Nazarene College supplies a group of students who are in advanced classes in the teaching of reading. A clinical relationship is set up for students who read two years or more below grade level, with the college students serving as clinical aides following the recommendations of the reading counselor. The cooperation of these aides has contributed significantly to the progress made by the students reading below grade level. The college students come to the situation knowing theories of reading improvement; the clinic provides the actual experience needed to translate theoretical concepts into useful techniques. Controlled readers, filmstrips, tapes and special materials are available for use in clinic sessions.

Reading Center

The minicourse that meets in the Reading Center is called "Reading for Enjoyment" and is scheduled each period of the day. "Reading for Enjoyment" started as a requirement for all seventh-, eighth- and ninth-grade students. An indication of the relevancy and popularity of the class is the fact that students chose this particular course most often when it was made an optional minicourse in the second year of the project's operation.

The Reading Center Counselor (R.C.C.) is an English teacher who understands the fulfilling experience of comprehension at varied levels. The R.C.C. coordinates, guides and evaluates the programs and activities of language manipulation in the Reading Center. She does this through a process of individual conferences which she has with each student once each week, although sometimes it is neces-

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sary for her to confer more frequently with students who have specific needs. These conferences consist of evaluations of participation in programs that are in continuous operation; among such programs are oral language practice using video-taped performances, creative writing programs with high school students and adult volunteers providing stimulation for writing, use of commercial listening programs and remedial reading instruction for those who need or request help. The conferences also include questions designed to determine the level of comprehension attained. The R.C.C. is skilled in questioning techniques that elicit evidences of the thought processes which enable students to comprehend at mature levels of thinking. In order to facilitate record-keeping, conference questions are classified according to Thomas Barrett's "Taxonomy of Cognitive and Affective Dimensions of Reading Comprehension."* Questions are asked at all levels. Patterns in the quality of responses are examined and stimulation is given in the weaker levels of comprehension.

Motivation is another area considered during the conferences. The activities in the Reading Center are guided by the philosophy that people motivate other people through the expression of themselves, and through the care and concern they exhibit toward one another. The R.C.C. expresses this attitude toward the students, and it seems to have paid high dividends. Conference folders are kept to record effort, progress and general conduct. Comments from college students, volunteers and aides, as well as the professional opinions of the staff, are kept on record to aid in the evaluation process.

Evaluation Strategies

In addition to the records maintained by the Reading Center Counselor and the conventional kind of library records, three standardized measures are used in this project. The *Nelson Reading Test* and the Reading Section of The *Iowa Tests of Basic Skills* are used as measures of general improvement, along with the *Estes Attitude Inventory* to measure changes in attitude toward reading.

Evaluation of the success of the Communication Skills Improvement Center is a continuous activity of the project staff. Test scores, anecdotal records and professional observations are evaluated in relation to the project's stated objectives and are compiled in a self-evaluation document submitted to members of the Evaluation Team appointed by the State Department of Education. The team consists of from three to five respected educators who are charged with the responsibility of validating the measurements and evaluations of the project staff.

The statistical findings concerning library records show that book circulation has increased an impressive 60% over preprogram records. The goal for scores on the *Estes Attitude Survey* was a 50-point gain. The accomplished gain has reached an average of 50 points, with four of the twenty items showing more than twice the projected 50-point increase. Scores on the survey tests that measure increase in

* Thomas Barrett, "Innovation and Change in Reading Instruction," Sixty-seventh *Year Book of The National Society for The Study of Education*, Part II—pp 19-23.

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general reading ability were commensurate with the goals set for each grade level. (Complete descriptions of the statistical findings are available by writing one of the project directors.) The reactions of West Junior High School's staff to the project goals was assessed by means of a questionnaire. Ninety percent of the responses were positive; this result verified the observations of the project staff.

Expenditures

Title III funds provide a half-time project director, a full-time reading specialist who is now co-director and a full-time secretary who also functions as a program implementer. Approximately 800 students spend at least an hour a day in the Resource Center as the "Enjoyment of Reading" minicourse is taught there.

During the three years of the project's existence, funding emphasis has shifted from a large percentage being spent on materials and equipment to a greater concentration on staff and personnel training and development. It is expected that when project funding terminates in the Spring of 1975, continued project implementation can be accomplished through maintenance of trained personnel.

Results

The goals of this project are broad, involving the total student population and the entire faculty at West Junior High School. Since project activities center in the language arts area, the five teachers directly involved have received the most concentrated assistance, but their practices have been willingly shared with faculty in other content areas. Improved skill in reading and improved attitude toward reading on the part of the students has been reflected in improved over-all academic performance for many students. The philosophy under which the project was written and under which it has functioned is that exemplary materials and innovative techniques will generate positive changes in both teachers and pupils and will increase appreciation and enjoyment of reading for everyone involved.

Second Year EVALUATION RESULTS (1973-74)

Objective	*Evaluation Strategy*	*Projected Goal*	*Results*	*Summary*
Increase student interest in reading	Comparison of library check-out records	Show an average of 10 books per pupil checked out during 1973-74 school year	Average of 16 books per pupil checked out during school year	Goal exceeded by 60%
Increase student attitude toward reading	Comparison of scores on *Estes Reading Attitude Scale*, April 1973 with April 1974	Increase in mean scores of 50 points per item (20) from pre-test scores	Increased mean of 50 points per item; 8 items increased by more then 50 points	Goal Achieved
Increase reading skill of students in clinic	Comparison of April 1973 and April 1974 mean scores on *Nelson Reading Test* (and Reading subtest of *Iowa Tests of Basic Skills*, when available)	Mean gain of 10 months	Mean gains for students in clinic: Nelson Test only 9 months for 7th graders 9 months for 8th graders 17 months for 9th graders Total mean gain, 11 months	Goal for total group and for 9th graders achieved
Increase reading skill of all students			Mean gains for all students: Nelson Test only 16 months for 7th graders 10 months for 8th graders 9 months for 9th graders Total mean gain, 12 months	Goal for total group and for 2 groups achieved
Assist teachers in becoming implementers of reading	Questionnaires to assess faculty awareness of project goals	Positive responses for 75% of full-time faculty	Questionnaires returned (20 of 24) showed: 57 positive responses 3 negative responses 35 positive comments 2 negative comments	Goal exceeded

Basic Skills-Oriented Learning Packages

" . . . the results of the project represent a significant contribution to improving the quality of public education in the State of West Virginia."

Auditor's Report, Summer 1974

The philosophy of the Kanawha County, West Virginia, Public Schools is based upon the simple, valid tenets that children do not learn at the same rate, with equal ease or with equal understanding. Complementing this philosophy is the realization that instructional consistency is almost an impossibility without a common core of basic skills from which to operate. In order to implement this philosophy and the basic tenets, 125 Kanawha County teachers, administrators and supervisors developed detailed lesson plans which would provide the teacher and student with essential information concerning the instruction of a particular basic skill.

Currently in its third year of operation, this Title III project has consistently maintained its original direction and has attained its goals and objectives, i.e., to introduce and coordinate the concepts of individualized instruction and continuous progress education. In practice, there is in fact virtually no difference between this "continuous progress" education and the so-called "non-graded" education.

Some of the project's steps have had to be delayed, however, due to fiscal and practical reasons. Although the project was originally conceived for and will ultimately involve the entire Kanawha County school system (130 schools), the number of participating schools was limited to 41 after the first year. The director and staff realized that this limitation was necessary in order for the project to be more effective and that it would provide better circumstances for the compilation of valid evaluation results. The forty-one pilot schools in the project are both public and non-public and serve approximately 56,000 students from kindergarten through grade 12, with over 2,000 teachers.

The Development of the Packages

The designers of these "Basic Skills-Oriented Learning Packages," while seeking to provide individualized materials, were aware of the pitfalls of "detailed lesson plans," and therefore sought to eliminate any lock-step rigidity which might hinder individual progress. The proponents of the learning packages state five major advantages for both teachers and students: 1) accessibility of materials, 2) consolidation of planning, 3) direction of auxiliary materials, 4) enhancement of instructional independence, and 5) reduction of mass presentations. Theoretically and in the long run, students would also benefit from appropriate placement, advancement and early completion.

From the outset, emphasis was placed on being cautious in using these packages in the classroom. The packagers ascertained that in order for the project to remain manageable, classroom teachers had to understand the real purpose and character of the packages. They were not developed as instruments for programmed instruction or "work-on-your-own" non-teaching ploys. The designers were also very explicit in advising the teachers that "there is the possibility that teacher-student interaction may be reduced and students may become bored if educational learning packages are used too extensively in the classroom."

Information for this article was supplied by Mr. James Dickson of the ESEA Title III Dissemination and Diffusion Division of the State Department of Education in Charleston. Additional information about the project may be obtained from the Project Director, Mr. Robert Kittle, Kanawha County Schools, 200 Elizabeth Street, Charleston, West Virgina 25311.

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To avoid this, teachers and administrators were urged to use non-packaged tests and worksheets and to refrain from distributing actual packaged materials to the students. This suggestion also implies and encourages individual teacher creativity and interpretation. Along with the responsibility to maintain good, constant interaction with students, the teacher must also determine that the direction and content of instruction are carefully gauged to each student.

The Learning Packages

After the Kanawha County teachers identified those skills which they considered basic to K-12 math, science, business education, foreign languages, learning disabilities and special education, the project staff then developed the materials around these skills. All of the contents of each package are geared to and are centered around the instruction of the basic skill under consideration. The components of the package consist of the package number, general content description (including the basic skill of instruction), prerequisites, behavioral objectives, sample test items, pretests and instructional experiences. In addition, most packages contain post-tests, summarative tests, worksheets to provide further learning activities and answer keys for all the materials.

Using these packages, the classroom teacher can place a child in instructional materials that are far below or above the grade or age level for which the teacher is responsible. At the same time, the packages give teachers a head start on long-range planning involved in working out an individualized program for each child.

The teachers may add more skills to the basic program as they deem appropriate, as well as those learning activities, lessons and media they prefer, only in so far as the skill is eventually acquired. It is important to note that the teachers are not required to use these packages *in toto*. Each teacher has the option to decide which method would

Two high school students examine learning package materials.

Sample Learning Package

Learning Package Number: EL 651-185.00

General Content Description: Secondary English Language Arts—The Novel: Definition and Types

Prerequisites: None

Behavioral Objectives: In order to demonstrate his knowledge of the novel as a literary genre, the student will correctly answer 4 out of 5 questions on the definition of the novel and types of novels.

Sample Test Items: Directions: Select the letter of the word or phrase which best completes the following question and place it in the blank to the left of the number.

__c__ 1. A novel dealing with characters from the Bible or recounting Biblical Events.

a. detective novel
b. historical novel
c. Biblical
d. spy novel

Pre-test: EL 651-185.01

Instructional Experiences:

1. Read and discuss worksheet EL 651-185.11 (Teacher directed)
2. Do worksheet EL 651-185.13
3. Read and discuss worksheet EL 651-185.15 (Teacher directed—may be used as a transparency lesson)
4. Do Post-test EL 651-185.03
5. Do worksheet EL 651-185.21 and .23
6. Do Post-test EL 651-185.05

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be workable for her/him. But each teacher *is* required to teach those skills that have been identified as basic to a course, program or subject.

The Project's Second Year

The second project year was characterized by increased activities in criterion-referenced test construction and administration and expanded development of diagnostic and placement documents. The director and staff realized that the original project proposal specified the accomplishment of far too many simultaneous tasks than were possible under existing personnel and fiscal parameters. As a consequence, the actual construction of learning packages was reduced from those plans specified in the original project proposal. Thus, basic skills-oriented learning packages were constructed in K-9 reading and 7-12 science rather that K-9 reading and K-12 science.

Evaluation after the second year of the project, involving only the 41 pilot schools, showed many positive effects. Observable in nearly all of the 41 pilot schools was the heightened degree of individualization of instruction. And, as a result of the learning packages and criterion-referenced tests, substantially greater efforts in student diagnosis, placement and prescription was noticed.

Another effect of the project was the expanded demand from the entire district for the project-developed criterion-referenced tests. In response to notification that the tests would be available to all schools, all but six requested and administered the tests. This is a noteworthy accomplishment, since two years before no such tests were available in the district and no students were diagnosed, placed or prescribed on the basis of criterion-referenced tests.

One effect which directly reflects on the success of the project is the increasing demand of the non-pilot schools for the basic skills-oriented learning packages. However, for purposes of experimental and control group testing, it was necessary to restrict the number of non-pilot schools that would receive the packages in order that a number of control group schools could be garnered.

The Third Year

The project director, Robert Kittle, and his staff are more than satisfied with the results of the project so far. All of their expectations have been met in relation to original goals. There is concern, however, over a sense of frustration on the part of elementary school administrators and teachers with the expanded development of packages in additional subject areas at their level.

The frustration is seen as a result of increased time demands that managing such a flexible curricular program cause the classroom teacher. This problem is unique to the elementary teacher where departmentalization does not take place. Each subsequent set of K-12 sequence learning packages affects each elementary teacher, while such curriculum construction generally affects a different set of teachers at the secondary and higher levels. As a result, the director feels that any future construction should entail more integration of materials with existing sets.

Impact on Kanawha County Schools

The greatest impact of this Title III project is the realization and determination of direction of the philosophy of the Kanawha County Schools, i.e., individualized instruction and continuous progress education.

Beyond this solidification of instructional direction, the project has made significant inroads on such related issues as grade level and school level articulation, reporting to parents, student mainstreaming, cross grade and cross level grouping, team teaching and alternative scheduling patterns.

One significant consequence of the involvement of the project in the school system is that this 1974-75 year is the first in the history of Kanawha County Schools when several of the junior high schools have tested elementary school students with criterion-referenced tests for the purpose of grouping, scheduling, placement and instruction at the junior high level for the succeeding school year.

Individualized Strategy in Early Childhood Education

Taking the approach that early childhood is the stage at which to start diagnostic and prescriptive steps in order to develop and promote basic processes beneficial to later learning, the director and staff of this Title III project developed a "strategy" with which to accomplish this academic goal. Originally funded in 1971, the project was validated in 1974 and is now funded as a demonstration/dissemination site.

Five districts in East Central Wisconsin have participated in this early childhood project, involving approximately 1,000 kindergarten and first-grade children each year.

Design of Program

The major thrust of the program is to provide for individualization in the educational environment of the child. There are several key facets to the program:

1) a developmental information-processing model,
2) a criterion-referenced test providing the early identification of the level of development (Various areas included visual and auditory perception and verbal and motoric development. Developmentally they lead toward symbolic language acquisition.),
3) a scope and sequence chart of sequentially developed behavioral objectives,
4) a simple record-keeping system designed to chart individual progress, and
5) a prescriptive guide of activities designed to allow the teacher to structure the educational environment according to the needs of individual children.

The essential feature of the program is the diagnostic-prescriptive approach utilizing the sequential behavioral objectives. In addition, the British Infant School model, embracing an informal approach to learning via classroom learning centers, is emphasized. The project has also included on-site monitoring, and feedback to teachers, in-service training and parental involvement in screening and as aides.

Theoretical Model

Dr. Robert Wendt, a school psychologist and consultant to the project, developed a theoretical model which would serve as the backbone of the early childhood program. The model provides a broad basis for the sequentialization of developmental skills so that a child placed within the program is always working toward a terminal objective.

The model stresses four basic learning processes (modalities) which require assessment: the *auditory* and *visual* processes that provide input of information and the *motoric* and verbal modalities which are expressive processes. The levels noted in the model represent progressive learning stages. Level I is strictly a sensory-motor activation and proficiency level. Level II is reflexive, with sensory awareness and simple discrimination of stimuli. Level III basically deals with the "re-presenting" of stimuli, involving visual and auditory perception in the receptive channel, organized meaningfully on an internal basis. More refined and complex coordination of processes are involved at the expressive level.

Level IV is somewhat unique because it focuses on the integration of processes. When designing a scope and sequence for children, it is essential to take into account the

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This article was prepared by Dr. Robert Wendt, psychologist and consultant to the project. Further information can be obtained by contacting the project director, Mr. Robert Shramm, 908 West Main Street, Waupun, Wisconsin 53963.

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theory that learning disabilities are frequently of an integrative nature. The imaginary Level (V) is the start of the integration of thought and language, dealing with "grouping" and sequencing of stimuli already perceived, utilizing the previously integrated processes. Level VI provides for the meaningful acquisition of symbolic language reflected in basic reading and writing skills.

The basic tenets of the program built upon this model are: 1) a child must have basic process developed to a certain level before terminal objectives, such as reading, can be taught effectively and meaningfully (Failure to take into account developmental issues results in failure and/or nonmeaningful rote learning.); 2) there must be an assessment of where the child is developmentally in terms of learning processes and the structural states; 3) once assessment has been made, the appropriate educational program should be selected to provide growth in each of the areas so that the child advances at his own developmental rate to the uppermost level.

Criterion-Referenced Screening Procedure

Another essential component of the program is its assessment instrument. Although designed primarily for children entering kindergarten, the test does provide assessment at the three- or four-year level, or for a six year old entering first grade. Because of the differing age and development levels of children entering school, and due to time considerations, the instrument begins with an assessment of all entering children at Level III, Representational Level. Assessment then proceeds upward or downward (or terminates) from Level III, depending upon the child's success (or lack of it). That is, after Level III, he will either move downward until he meets success or upward until he encounters difficulty. The results are then profiled and given to the classroom teacher who can then begin instruction at the appropriate level. The assessment, which lasts approximately 45 to 50 minutes, is not designed to be categorical in nature. However, children with exceptional needs can be readily identified and, if necessary, referral to other more complete resources available for diagnostic evaluation can be made from the screening results. The assessment merely provides a starting point for the teacher. If the assessment is in error, the teacher can easily adjust accordingly because the educational sequence is stated according to behavioral objectives.

Classroom Procedures

Instruction begins informally, with heavy emphasis on working independently and solving one's own problems. No special consideration is made in regard to facilities. The project has been operating in traditional self-contained classrooms, as well as larger open-concept classrooms. Teachers have utilized many creative ideas in facilitating a learning environment.

Self-instructional materials are a valuable tool when implementing the program. While cassettes, records and overhead projectors do much to promote program activities, it is not imperative that they be available. The unusual application of the traditional materials and equipment found in any good kindergarten has been a highlight of the project. Teachers have been able to adapt many games and activities once thought of only as play-type activities to learning situations. The use of balls, puzzles, ropes, etc., is emphasized as learning tools rather than toys.

Inservice involving theoretical aspects of the program, utilization of behavioral objectives and developing and implementing learning centers was an integral aspect of the first year of the project. In addition to classroom consultation and monitoring, approximately one session of two hours per month was required. The preservice and inservice after the first year were reduced according to individual unit needs.

Essentially, an environment for selectivity and freedom is created, using existing rooms and, by and large, usual equipment. As children begin to master work learning centers are set up. Children are directed by the teacher to a learning center, to an aide for assistance or assigned to the teacher for an instructional period. The activities found in the learning centers or the small group activities were selected as prescriptions from the Prescription Guide by the teacher and matched to each child's diagnosis. As activities within the centers are completed, children are allowed to select activities in other centers according to their interest. Instruction is planned to enable children to utilize strengths in eliminating weak areas.

Each objective in the program is behaviorally written to allow the teacher to post-test at any time by observing the child's performance on an assigned activity. Should the child not be able to perform the activity, additional prescriptions relating to the behavioral objective are assigned. In the event the child successfully performs the objective, he continues with the post-test of objectives until he is unable to perform the next test. Instruction then begins with the assignment of new appropriate prescriptions. This procedure is repeated with each child as he moves from level to level.

The focus of the entire project toward behavioral objectives and criterion-referenced assessment is an attempt to help bridge the gap that often exists between assessment and effective, practical, educational procedures.

The assessment attempts to isolate various abilities (or disabilities) but does not attempt to determine readiness for school. On the contrary, it is felt that to use the results properly the assessment instrument should be integrated

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with curricular objectives and result in individualized instruction. Therefore, the instrument is designed to help locate the child along a developmental curriculum sequence. The tests themselves reflect and assess according to the behavioral objectives listed on the Scope and Sequence Chart. Each child, as a result of the assessment, is placed somewhere along the sequential program and teaching begins for the child at that particular level, moving upward as he masters more difficult and higher level objectives.

The use of the developmental model, Assessment Instrument, Scope and Sequence Chart, Prescription Guide, along with the more global individualizing techniques such as learning centers, attempts to broaden and alter the philosophy of the educational system. In essence, by individualizing the school program, the school has in fact assumed the responsibility to teach all the children, regardless of individual differences. Therefore, in contrast to a deficit-centered approach to assessment and programming, the approach with this model is positive in orientation.

In summary, skills are analyzed according to learning processes (auditory, visual, motor, verbal) and the level (reflexive, integrative, etc.) the child has obtained prior to entering school. The school program then takes him along (at his own rate) the behaviorally-defined sequence until he reaches the target behaviors reflecting reading, writing and arithmetic skills.

This program is designed so a child can proceed through school at his own pace, inspired and motivated by the teachers, the curriculum and himself, and not motivated primarily by competition with others or artificial grade-level expectations.

Results

An ESEA Title III validation team from Indiana, in monitoring the kindergarten aspects of the project, indicated the teachers had highly individualized their classrooms. Evaluating the project in reference to stated objectives, they reported that after three years the classrooms reflected "positive changes in kindergarten education throughout the school systems involved."

They summarized:

> Moreover, team members expressed the wish to underscore their belief that the Waupun, Wisconsin, project has an educational idea with accompanying materials which should be disseminated throughout the country. The team made a serious effort to cover all relevant variables. The program is innovative, highly so, and to such a high degree that there are few references, at this point, in the vast array of literature regarding individualization in Early Childhood. There is documentation sufficient to prove the successful achievement of most of the stated objectives. Effectiveness and success were determined on the basis of measures as prescribed within the original statements of the project objectives. The new program, surprisingly, reflects extremely low costs when correlated with the "normal" costs for launching and maintaining the usual, and in many instances, non-productive kindergarten programs. The project is exportable. A wealth of meaningful, easily adaptable, teacher and child-tested instructional/learning materials are available.

Cost of adopting the project is minimal since many of the materials already in the average classroom may be used. With the emphasis of the project being on inservice training, the primary costs deal with the allocating of time for up to 30 hours of inservice training and consultants to cover the inservice sessions. Program materials developed, such as screening materials, charts and prescriptive guide, amount to $12.00 per classroom.

Numerous school districts in Wisconsin have expressed interest in the screening aspects of the program and several have formally adopted the full program. It is anticipated that during this year, due to the continued funding, several sites across the country will be established. Inservice programs and on-site visitations are available to interested districts.

Summer Television Arithmetic and Reading: Project STAR

"Comprehensive educational studies indicate that there is a normal loss of learning during the summer months . . . This academic loss is a significant fact in a child's normal school progression and tends to be a critical variance in the achievement of the basic skills continuum."

In 1965 the U.S. Office of Education granted a research contract to the Evansville, Indiana, public schools to determine the extent to which children experience a loss in reading ability during the summer following first grade. Included in the grant were provisions for the development of a television program designed to prevent much of this loss of reading skill.

In May of 1965 all first-grade children in the school system (approximately 2,500) were given the *California Reading Test* and the *California Short-Form Test of Mental Maturity*. In September, an alternate form of the reading test was given to the same children. The results of the testing verified the project's premise: children who had had no special reading program showed a significant loss in reading ability during the summer. The girls scored higher than the boys in reading although the boys scored higher in intelligence. The average loss for both boys and girls was two months, or 20%, of the first-grade reading achievement.

Ride the Reading Rocket

A team of first- and second-grade teachers began the second half of the project by developing an activity book with outer space as its theme, entitled *Ride the Reading Rocket*. Since boys scored significantly lower than girls and needed special consideration to assure their daily participation, the space theme was chosen because it would have sustaining interest for them. The activity book contained 102 pages, providing two or three pages of materials for each day. A word for the day was to be written by the television teacher on a chalkboard and copied by the children into their books. The teachers developed fun activity pages as well as the skill pages, and special sections of the book contained the alphabet, a theme song and postcards addressed to the television station from which the program was aired. Additional pages were added to the book for recording attendance and titles of books read.

During the Winter of 1965-66, the activity book was illustrated and printed and the television stage constructed. Designed as the inside of a spaceship, the stage included control knobs, chalkboard, flannel board and space for mounting materials.

In the Spring, all first-grade students were given the same tests as were given the previous year. During the last week of school the children were given their activity books after an introductory 15-minute television program. They met the teacher, "Miss Sandy," and "Rocko," the space boy puppet from Jupiter, and learned about the exciting activities of the program. The sets were then turned off in school, but parents continued to watch at home as the television teacher explained how parents could help their children benefit from the summer work.

Ride the Reading Rocket was televised on a local station every weekday morning for a half an hour for eight weeks, providing 40 lessons. Skills practiced included perception, hand-eye coordination, reasoning (deduction), interpretation and comprehension.

The results of this initial program showed that there was no loss of reading ability for the television group; there-

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Information for this article was supplied by Dr. Jack W. Humphrey, Project Director, 1 S.E. North Street, Evansville, Indiana 47708.

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fore, the 1966 group was an average of two months better than the 1965 group. The results also showed that those children who watched most of the programs did significantly better than those who watched half of the programs or less. The television program appeared to have an especially strong effect on boys since their test outcomes were higher than the girls'.

During the following summer, the audience for the program was extended to a 30-county area in Indiana, Illinois and Kentucky. Most of the stories were changed to avoid repetition for those children who would participate for a second year and technical changes were made to accomodate color telecasting. It was estimated that less than one third of the children did not have access to television sets and over one third had two or more sets in their homes.

Title III Grant

Because of the overwhelming success of *Ride the Reading Rocket,* and in order to expand the viewing area even further and to produce additional series, the project applied for and received an ESEA Title III grant in 1970.

A 1970 overview of the project describes the predicament of the Indiana public schools as follows:

> Many schools do operate remedial classes for the slow learner during the summer, but there is no accomodation to help *all* children to maintain learning achievement during the summer months . . . Most schools in Indiana are experiencing financial difficulties in maintaining their regular school programs at the present time so they are not prepared to carry the additional burden of offering supplementary services to *all* children during the summer.

The project director, Dr. Jack Humphrey, proposed that, televised on a state-wide basis, the television series would serve as a transitional learning experience for *all* children during the regular school year. The main objectives of the project were stated as an effort to: 1) maintain academic basic skills over the summer months; 2) involve parents in the learning process; and 3) involve teachers in reading inservice training. Another objective was to heighten student interest in reading and mathematics as shown by increased library circulation and improvement of performance.

A final goal of six individual series was proposed, focusing on children about to enter grades one through nine. Five new programs would be developed to complement *Ride the Reading Rocket.* These programs would be available to all interested children in the state within the reception areas to which the programs were to be directed.

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Along with these programs for children, the project developed two other complementary programs. The first was a "Reading Inservice Series," consisting of ten training sessions for teachers. The other was developed for parents, entitled "Tips for Parents of Preschoolers." It was estimated that during the project's funded existence, 3,000 teachers viewed the inservice training series and 10,000 parents watched the "Tips" program.

A full-time project coordinator, experienced in educational television, was hired to oversee all project activities. The television teachers, preferably members of the activity book writing teams, auditioned on video tape. The series themselves were produced in color on video tape, with dubs distributed to the various local stations. An extensive effort to involve as many children and adults was made by disseminating materials to all principals and superintendents in Indiana prior to the start of each series.

The T.V. Programs

The five new series were designed to focus on reading and math for students at different levels. While *Ride the Reading Rocket* was developed specifically to provide reading reinforcement for first-grade students, the age level of the new programs spread from postkindergarten to junior high. The following programs were developed with Title III funding.

A-Math-A-Magical World is a math series for intermediate and middle school students. The telecasts follow the lessons in an activity book which emphasizes the understanding and computation of whole numbers.

Zany Zoofari is designed for children who have completed kindergarten. The program lessons concentrate on a review of alphabet letters and their sounds, colors and numerals with a strong emphasis on perceptual development. In the series, children participate in activities such as manners, emotions and telling time. A 132-page workbook entitled *Zoo-Fari Guide With Zingo* is used by the children.

Catch a Bubble is for children who have completed second grade. The goals of this program are to maintain interest and reinforce skills in reading, language arts, mathematics, science and social studies. Many of the lessons are designed to develop children's creativity. The teacher, Skipper Joy, utilizes a 100-page activity book.

Up Up and Away is designed for intermediate-grade children. The content is about Indiana people, places and things. For example, lessons include stories about James Whitcomb Riley, the Indianapolis 500 and Chief Little Turtle. A 94-page workbook is used in this program.

Summer Journal is a language arts television program for junior high students. The series is designed to stimulate the viewer to discover more about his own unique potential. A 134-page Summer Journal containing speed reading exercises, articles by writers such as Jesse Stuart, poetry and other features is used by the students in this program.

Evaluation

The task of evaluating educational programs broadcast over many stations into thousands of homes is a difficult one. An extensive evaluation was made of *Ride the Reading Rocket* but, since the other programs were developed and utilized following the procedures found effective in this first series, the time and funds necessary for extensive evaluations of these other programs were spent on development and production. The results of tests given, however, supported the summer loss/very-minimal-gain observation for those children who did not participate in the televised programs and proved the success of the programs in helping to improve reading and math skills.

During the funded existence of the project, over 30,000 pieces of mail were received from viewers, both adults and students, in response to questionnaires, library circulation reports and comment cards. Seventy-five percent of the teachers responding to a questionnaire felt that inservice training via television was effective.

Costs

Although development and production costs are high for most television programs, the project determined that in the long run, and on a cost per pupil basis, the television programs are relatively inexpensive. To develop, produce and distribute on a state-wide basis a new series of 40 half-hour, color programs, while maintaining five others, costs $150,000. This figure represents $6.00 per pupil for 25,000 students who purchase a workbook, or 60 cents per student for the estimated 25,000 viewers. The cost to lease 40 half-hour color video tape dubs is approximately $2,500, or 9 cents per pupil for 25,000 students. Purchase costs for the same series would be $7,200, or 28 cents per pupil. The sale of workbooks can partially or totally cover the publicity and air time costs.

Continuation

As is true with most successful Title III projects, STAR was not terminated even after Title III funds were no longer available. Since the programs are on tape, they are continuing to be used in the Evansville-Vanderburgh School Corporation as well as in many other school districts. The tapes and workbooks are available for preview, lease and purchase to any interested school system or television station throughout the country. To date, the programs have been shown on eight television stations and 20 cable companies in Indiana and several other states through the University of Nebraska.

A Thematic Approach to Reading, Utilizing Library Media

Promotion of greater interest in reading helps generate proficiency in reading.

Educators in Poudre School District R-1, Fort Collins, Colorado, recognize that an individualized approach to reading is essential to realistically meeting the needs, interest and abilities of each child. With the abundance of resources available through school, district and community library media centers, opportunities are many for greater personalization of reading instruction which will enhance the intellectual as well as the emotional experiences of each student. Presently in its third year, this project involves 2,054 of 7,000 elementary students and 71 teachers in three schools.

"A Thematic Approach to Reading, Utilizing Library Media," designed for kindergarten through the sixth level of studies, is based on the tenet that there is a positive correlation between learning and interest or motivation. Because many of an individual's life successes rely on the person's ability to read, it is believed that promotion of greater interest in reading can generate greater proficiency in reading. Planned rather than incidental use of books, tapes, filmstrips, films and other media adds vitality to the K-6 reading curriculum. The Thematic Reading project provides an opportunity to assess the validity of integrating a thematically-oriented reading program utilizing library media into the total district's reading curriculum.

Thematic Reading (TR)

The Thematic Reading project provides a variety of reading resources for all students and acquaints them with the process of independently and successfully selecting reading materials which will be valuable and interesting.

In addition to reading materials, the program provides the students with alternatives in the type of media from which they can learn so they can have multisensory experiences to develop auditory as well as visual acuity. This approach supports the theory that learners retain 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they see and hear, 60% of what they say as they talk and 90% of what they say as they perform a task. The existence of these alternatives and choices, as well as regular one-to-one teacher-student conferences, group discussions and follow-up activities, gives each student opportunities for positive reading experiences. These positive experiences will be a measure of success and will reinforce and build upon a good self-image. All of this prepares a student for a life of being selective about personal reading with a greater awareness of the breadth of materials available in the schools and community.

Requirements and Components

The director and staff realized that the project could not succeed in any school system unless several requirements were met. Two of the most essential of these is that (1) the school district must embrace a philosophy which encourages sound educational and curriculum change and (2) the school principal involved must provide curriculum leadership and serve as a catalyst for teachers implementing new ideas and programs. The teaching staff needs to be creative, believe in tailoring teaching techniques to learner needs and work as a cooperative unit. The key person in the project is the media specialist (or librarian) who serves as a curriculum resource teacher, teaming with other teachers in the selection and utilization of teaching and learning strategies, media materials and equipment. The success of

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Information and materials for this article were supplied by Patsy Balcom, Project Director and Media Coordinator, 2407 Laporte Avenue, Fort Collins, Colorado 80521.

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the curriculum relies almost completely on a media program which includes audio-visual equipment, a centralized collection of such library materials as books, filmstrips, tapes and study prints and maintains access to films and other materials and human community resources.

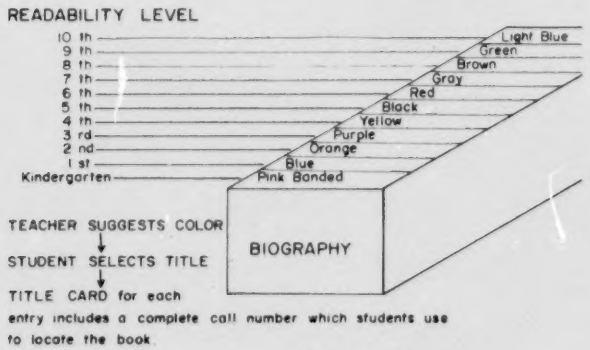
Implementation: Providing Options for Learning

The design and plan for implementation of TR is such that the learning/teaching experience becomes more interesting, relevant, exciting and enjoyable. The teacher and media staff evaluate the readability level of all materials by using standard formulas and then assign the media to one of the following thirteen thematic units: Fairy Tales/Fantasy/Folklore, Mythology, Cultures of Man, Animal Stories, Current Issues and Concerns, History, Careers, Science, Recreation, Adventure/Mystery, Poetry/Plays, Biography and Science Fiction.

A color-coded file is set up for each book level within a specific theme. Each book pocket and borrower card is marked inconspicuously so that only the student and teacher are cognizant of the level at which the student is reading within a given theme.

All teachers and staff participate in inservice training and are responsible for enlisting the help and support of community volunteers. As well as providing time for utilization of the thematically-oriented reading program, the staff also conduct individual teacher-student conferences and facilitate group sharing. Student progress records are kept for individual as well as project evaluation.

The main objective of the project has been stated as that of giving students the opportunity to become acquainted with a variety of reading materials. By participating in the teacher-student conferences, students have a chance to practice self-expression and get an understanding of their own personal progress. Students will hopefully demonstrate increased interest in reading by making greater independent use of the library and by responding positively to attitudinal surveys. Further, students will be inspired by the new approach to reading to complete a variety of creative projects as well as achieve higher scores on objective-based tests devised for Poudre R-1 reading objectives.



Along with the basic requirements, the project operates on the basis of three key components. The first is the card file which is color-coded according to readability level (1.1, 1st grade, 1st semester; 1.2, 1st grade, 2nd semester), which helps students select appropriate resources within the class-adopted theme(s). The teacher-student conference, which gives the student a specific opportunity to discuss what has been read, serves not only as a teaching/learning method, but also as an evaluation tool. But, above all, the concerted effort to enlist the media specialist as the central member of the reading team is essential to this particular project. The large degree to which the media specialist is incorporated is what makes this approach to tackling reading problems truly innovative and successful.

Learning Strategies

The project director, Patsy Balcom, and her staff observe the thematic approach as it is being used in the classrooms, make suggestions and do further investigation into ways in which the teachers can be assisted in implementing the programs. The director observed that teachers were integrating the program into their "regular" classroom reading programs. In order to encourage this kind of integration, classroom management techniques were explored.

One of the results of this investigation was the Quadri-Block Management Design which helps teachers organize the class into manageable-size groups of learners and gets away from the "all-do-the-same-activity" syndrome. With a base of 32 students, groups of eight move from one to another of four alternate activities (see Figure A).

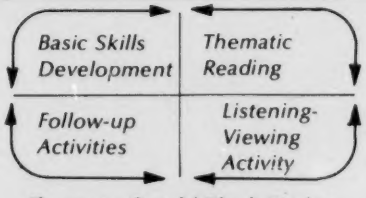


Figure A. Quadri-Block Design

- 8 students work on basic skills.
- 8 students do thematic reading (practice USSR, read at desks or in more casual setting, have individual conferences, etc.)
- 8 students use the AV viewing/listening center in the classroom with book/tape combinations, worksheet/tape activities, taped stories, theme related films.
- 8 students involved with follow-up activities.

Involvement

The following exerpts from the bimonthly *TRU Notes* newsletter give specific examples and attest to the effect of the project on students and teachers.

- One music teacher coordinates his teaching with the reading program by using music from *Peer Gynt* and showing the Russian-made movie of *Peter and the Wolf* to a class using the Fairy Tales/Fantasy/Folklore theme.
- A fifth-grade class working in the Animal Stories theme decided they would enjoy retelling their books to children in the kindergarten and first grade.
- A girl reading in the History theme chose books about the Navy "because my brother is in the Navy and I

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Thematic Reading includes nonprint materials as well as books.

Two students enjoy a sound-book which was taped for them by an adult volunteer.

Primary students use the color-coded card file to select books.

want to understand what my parents are talking about!"

- A second grader, discouraged at her inability to read anything at all, has had success with book/tape combinations. She follows the words in the book as she listens to the tape and then struggles through the book on her own.
- Activities emanating from thematic reading units have included the writing and production of plays and puppet shows and the creation of various art projects.
- Two teachers have each student use a special bookmark in his thematic reading book. Each time he comes to a word he is not entirely sure of, he writes it on the bookmark which is then used as a basis for individual vocabulary work.
- Volunteers are an integral part of the media program — some of them do routine work like carding and shelving, others work directly with students, while others level books for the reading ur its, make bulletin boards, lead story-times and make tape recordings.
- While working on the Animal Stories theme, the media specialists had live animals brought into the classroom. One boy's comment: "What are you going to bring us when we start Fairy Tales/Fantasy/Folklore? A Witch?"

Evaluation/Results

For the educators in the Poudre School District R-1, valid assessment of the thematic reading approach continues to be a concern. The District subscribes to a testing philosophy gained through a comprehensive planning effort for each subject area which gives greatest credence to criterion-referenced test results as indicators of quality education, not to standardized achievement test results. Reading objectives, primarily in the cognitive domain, developed by teacher/ consultant teams for levels three through six, were first tested last spring. The following results show the comparison of project school tests with the district average.

Levels 3, 4, 5 and 6 exceeded the district achievement average on 84.8%, 90%, 70% and 74.4% of the total number of items tested, respectively. The significance of the test items, as well as the results, must yet be determined. The California Achievement Test was administered to grades one, two and six. In the project schools, grade one exceeded the district grade level average at a .17 level and the national level at .77. Grade two exceeded the district average at a .17 level and the national average at .97. Grade six scored above the district average at a .40 level and the national average at .80.

Neither the criterion-referenced test results nor the CAT results, as cited here, take into account the expected achievement level for these particular schools involving 2,054 of the 7,000 elementary students enrolled in the district. Influential variables shall be taken into consideration during the third year evaluation effort.

Because the goal of the project is two-fold, i.e., increasing interest and increasing performance, results of attitudinal surveys conducted among the students, teachers and parents are also relevant. Responses to these have been overwhelmingly positive.

The feasibility of expanding the program into other schools is currently being explored. An intensive process called the "Comprehensive Planning Model for Instructional Change" is being used as the process to be followed while making this feasibility study. The progress of Poudre R-1 in Comprehensive Planning has led to the development of this carefully defined procedure through which planned instructional change can be effected. Taking Thematic Reading through the model will assure that the proposed instructional change is productive and is consistent with reading program goals of the district. This model consists of road maps including four major procedures: 1) Idea Start Model, 2) Developmental Model, 3) Model for Approval of Instructional Change, and 4) Implementation Model. At this point, Thematic Reading has been taken through the first two models. The Reading Consultant and the Project Director, who is also the Media Consultant, are cooperatively spear-heading this effort.

PROJECT MEDIA LITERACY: From Theory to Realism

Although large numbers of educators have encouraged the use of media in the classroom both as a means to teach the basics and as an entity worthy of study for its own sake, few have had the expertise or time needed to develop a truly complete media curriculum—to bring the whole concept of media literacy from the theoretical level down to the realistic basis which exists in the educational world of real students with real needs.

The impact of media on today's youth can best be demonstrated by providing some statistics collected by John Culkin of Fordham University:

> By the time a typical American student graduates from high school today, he has watched some 15,000 hours of television and has seen more than 500 films. The TV figure is the result of an average of 20 hours weekly viewing for 15 years, adding up to two full years of 24 hours-a-day televiewing. During the same period of time, this average student has attended school five hours a day, 180 days per year, for 12 years to produce a total of 10,500 hours of school time. Only sleeping time surpasses television (i.e., film at home) as a top time consumer.[1]

Other rather shocking data can be found in Nicholas Johnson's book, *How to Talk Back to Your Television Set:*

> In the average home the television is turned on some five hours forty-five minutes a day. The average male viewer, between his second and sixty-fifth year, will watch television over 3,000 entire days—roughly nine full years of his life . . . Americans receive decidedly more of their education from television than from elementary and high schools. By the time the average child enters kindergarten, he has already spent more hours learning about his world from television than the hours he would spend in a college classroom earning a B.A. degree.[2]

With statistics such as these in mind, educators are seeing the need for using media in the educative process as a vehicle to teach any subject matter. They are also realizing that media literacy, as well as reading literacy, should be taught in the classroom. As Carole Kirkton stated in the *English Journal:*

> We literally live and breathe in a "media-atmosphere" and we have accepted nonchalantly this phenomenon without really perceiving it because it is part of our environment. Lately . . . we have become aware of the omnipresence of the various media and of their pervasive influence. With that awareness comes a conviction that perhaps education and the concept of literacy ought to include more than the printed page, that if teachers are to help equip students for the future, they would do well to take the leap beyond the linear line . . .[3]

Visual literacy should be an objective which demands as much of the teacher's attention as alphabetic literacy. James Olsen in *Media and Methods* stated that "if our youngsters are not taught to perceive differences in the quality of the types of information and entertainment they receive through the mass media, the schools will be generating a kind of media illiteracy which, I believe, can be construed to be as serious a social problem as alphabetic illiteracy."[4] Educators need to help their students un-

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This article was written on the basis of information obtained from Carolyn Tennant, Special Programs Consultant, Adams County School District No. 12, 10280 North Huron Street, Denver, Colorado 80221.

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derstand the influx of media which inundates their daily lives, as well as to develop in their students the capacity for using media rather than sealing their doom by allowing the media to use them. "One gains visual literacy, "suggests David Sohn, "in much the same way that one becomes literate—through experiencing the language and establishing the standards of taste, whatever they may be worth."[5] Students need to have the tools necessary to be discriminant and literate viewers.

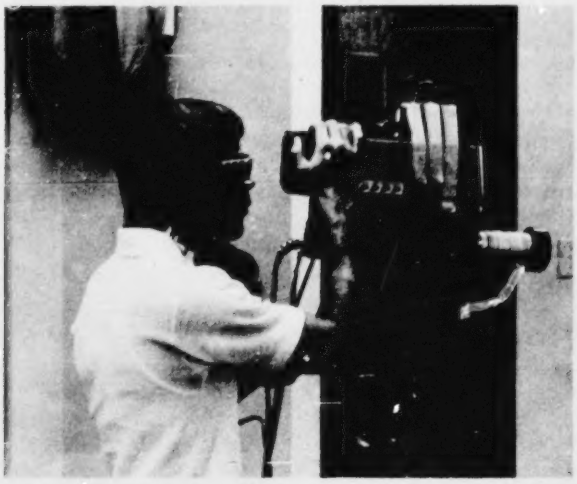
How to Teach Media Literacy

The obvious needs point to a curriculum which involves a media literacy, and it was with these thoughts in mind that Adams County School District No. 12, in Northglenn, a suburb of Denver, Colorado, applied for and received a Title III grant which provided funds to write a media curriculum for grades 7-12. Now in its third and last funding year, Project Media Literacy has indeed accomplished its original objectives.

A Continuous Curriculum

This year, when the English department went to an "English-by-Choice" program at Northeast, the junior high school where Project Media Literacy was originally implemented under the leadership of Tom Fitzpatrick, the media courses were so popular that 17 sections of eight different media courses are being taught by seven teachers during the fall semester. Fifteen courses have been or are in the process of being written, implemented and revised at the junior high level. These include: Still Photography; Animated Film 1 & 11; Beginning and Advanced Radio; Beginning and Advanced TV; Values, Media and You; Film Study; Advertising; Script Writing; Photography and the Short Story; Frame by Frame.

At the senior high level another 16 courses have been or are presently being written, implemented and revised. These include: Semantic Approach to Mass Media; Radio Communication; Film Study; Filmmaking; Television Drama Workshop; Women in Literature and Media; Journalism in Television; Visual Communication Through Photography; Literature and the Film; Television Production.



At Northglenn, the senior high school where the project was originally implemented under the direction of Marty Gorce, Lab Director, 1,200 students were involved in at least one of the classes offered last year as part of their "English-by-Choice" program, and these classes were taught by 15 different teachers. A television laboratory at both Northeast Junior High and Northglenn Senior High aids in the teaching of these media classes by providing a place where much of the media equipment can be used and stored.

These media courses vary in length from 3 to 18 weeks. All include student performance objectives involving media literacy. Each media course has been carefully prepared so that it contains all areas of language arts skills including speech, reading and writing. In addition, the objective of integrating all media of communication into the English program has been reached.

Teacher Inservice Training

In order to write and teach this media curriculum, teachers were provided with a wide variety of inservice offerings in the field of media. The inservice programs were particularly successful and received very favorable evaluations. The participating teachers felt that they acquired new skills and competencies that met their needs, and some even felt that their whole approach to methodology had been changed. The inservice possibilities included a six-day Workshop in Television Production, a two-week Workshop in the Electric Humanities, Mini-Filmmaking Inservice, Curriculum Workshop, Advanced Practicum in Teaching: Film Study, Media Institute, Filmmaking Workshop, Photography Workshop and Filmmakers-in-the-Schools. A wide variety of organiza-

tions and consultants from throughout the United States who were involved in these inservice offerings provided the background needed for the writing and teaching of the media courses.

There is a definite need for inservice if this curriculum were to be implemented elsewhere. Teachers must sense the need for media courses, feel comfortable with the equipment and have a positive attitude toward the use of media in today's classroom, both as a vehicle to get to other basic skills, as well as an important study in itself leading to the development of media literacy.

Project Costs

A media curriculum cannot be implemented without incurring costs for equipment and supplies. This particular project, however, spent most of its ESEA Title III funds on the development of the courses and the teachers' inservice training. The project received a $12,000 Title III grant for the first two years and $15,000 for the third year, with approximately $400 of this being spent on equipment.

With the help of other district funds and a grant from NDEA Title III, both schools involved in the project were able to set up a TV laboratory. Although having new and efficient facilities and equipment made the implementation of the project easier, the project director notes that a TV lab is not a necessity in order for the project to function and be effective.

Project Results

The students as well as the teachers in Adams County School District No. 12 have responded very favorably to the introduction of media into the curriculum. Several schools in the district are now in the process of setting up TV labs in their schools and implementing the K-12 continuous curriculum which has been written through this Title III project. The need is obvious, and it has long since been time to initiate the objective of visual literacy into the English curriculum. This project stopped theorizing about the use of media in education and actually did something about it in the real classroom, not partially, "here and there," but in a complete and systematic way. By doing so, the students will be able to cope with the great influence of media on their lives. For them, media literacy has become a reality.

Footnotes

1. John M. Culkin, "Motivate Them With Movies," *Momentum*, April, 1970.
2. Nicholas Johnson, *How to Talk Back to Your Television Set* (Boston: Little, Brown, and Co., 1967).
3. Carole M. Kirkton, "Media Literacy: Focus on Film," *English Journal* (National Council of Teachers of English, September, 1971).
4. James Olsen, "A Professional Looks at Media," *Media and Methods*, October, 1971.
5. David Sohn, "See How They Run," *Media and Methods*, November, 1969.

Espanola Reading Centers

In the Espanola and Sombrillo Elementary Schools, two of the largest elementary schools in their New Mexico district, 1971 test results indicated a higher than average number of underachievers in reading. These were students whose reading scores were not necessarily below age and grade standards, but significantly below their individual anticipated levels.

Test data obtained from the *Comprehensive Test of Basic Skills, Form Q* also revealed that 80 percent of the entire third-grade population and 82 percent of the entire fifth-grade population achieved below national norms in reading.

Continuous communication with parents and teachers indicated that they were concerned about the great number of children who were not achieving adequately in reading. Attempting to match national norms then became secondary to helping students with significant reading underachievement come closer to their expected levels. Many efforts were focused on this problem with negligible results.

Reading Centers: A Title III Solution

During the 1971-72 school year, two reading centers were developed and funded by Title III for the Espanola Elementary School and the Sombrillo Elementary School. Although the project had several objectives, the primary goal was established as: "Given a highly individualized program of reading instruction for underachievers, post-test results for participants will yield a mean learning ratio that is at least three times the mean learning ratio computed from the pre-test scores."

This article was submitted by Rosina Ready, a teacher in the Espanola Reading Center, P.O. Box 916, Espanola, New Mexico 87532.

The centers are housed in standard-size classrooms and are arranged and equipped in such a manner as to promote activities in a course of instruction designed to meet the program objectives. Each center is staffed with a full-time teacher and instructional aide.

The reading program is designed for the regular school year term and provides services during the normal teaching day. The length of time for program participants has varied in some cases, but generally a student is scheduled to spend one hour daily, four times a week in the program. The fifth day of the week is used to confer with parents and the regular classroom teachers in addition to providing assistance to those students with the most need.

Selection of Program Participants

All students in grades two through four at both schools were administered tests in a group situation in order to identify those who had a substantial disparity between reading potential and reading achievement. Classroom teachers in grades two through four reviewed the raw test data to determine whether scores and classroom performance for their respective students were consistent. In the event that they were determined inconsistent, the scores for non-readers were adjusted while others were administered a second test.

From the information that was obtained from these scores, a Reading Expectancy Quotient was computed for each student. Albert J. Harris's formula was used to compute the REQ from which a priority list for each grade level was established.

The control dimension utilized in the selection of the program participants assures that only those students who have the capacity to benefit from the services of a special reading teacher are accepted in the project. However, the activities designed to meet the objectives contain behavior

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Students in the Espanola Reading Center

modification techniques aimed to interface the reading teacher's efforts with those of the classroom teacher. This method of placement and the system of delivering services makes the program effective and efficient since every detail is looked upon in terms of function.

It was determined that a case load of 30 at any given time would be maximum for each center. This number was established after some experimentation with a larger number in one of the centers.

Diagnosis and Program Activities

Careful analysis of each student's reading difficulties is a necessary and vital part of the program since each participant's individual course of instruction is based upon that analysis. The following is a summary of one year's individual testing.

On the *Frostig Tests of Visual Perception*, 80 percent of the remedial reading students at Espanola and 66 percent of the remedial reading students at Sombrillo demonstrated a need for visual perception training. The Frostig Program for Individual Training of Remediation in Visual Perception was used at both centers. The *Keystone Visual Survey Tests* were administered to measure the students' near-point acuity, fusion and depth perception, those vital functions that have been found to have a definite relation to reading. The percentages of students who received unsatisfactory ratings in these areas averaged about 10 percent. Parents were advised of a possible need for professional visual evaluation in those cases where ratings were very low. The school nurses at both schools measured the remedial reading students' hearing acuity also and reported that none of them were found to have a hearing loss. The *Harris Tests of Lateral Dominance* indicated that approximately 26 percent of the remedial reading students had dominance anomalies.

Motor incoordination, minor speech difficulties and histories of difficult birth among some of the remedial reading students suggest that brain damage may be a basic causal factor of their reading disability. In no instance, however, was a request for a soft neurological work-up considered necessary.

The teachers reported that four out of the entire remedial reading population demonstrated personality maladjustment which existed prior to reading experience and appeared to be the cause rather than an effect of their reading disability. Appropriate referrals were made in these instances.

The Reading Program

An eclectic method of individualized reading instruction is used by the teachers in this program with a special effort being made to maintain an effective balance between the reader's three cueing systems—graphophonic, syntactic and semantic.

Many varied techniques and materials are utilized to help every participant develop effective reading skills. The materials include: tapes with accompanying lessons, reading games, visual perception lessons, teachist-o-filmstrips, filmstrips on phonic analysis, Hoffman Achievement Units, blocks and parquetry sets with pattern cards, library books, high interest-low vocabulary books, paperbacks and hardbacks with accompanying records, sight vocabulary card sets and overhead transparencies.

Equipment available at each center includes a Hoffman viewer, an overhead projector, a filmstrip projector, two cassette tape recorders, a record player, a listening center and a tachist-o-flasher. Round and trapezoidal tables, chairs, a storage cabinet, a half-circle table, two children's book racks and a 9 x 12 carpet are considered essential.

Evaluation Design and Program Outcomes

At least three evaluation designs were considered during the planning phase of the program. Initially, it was decided that a control group scheme would be most applicable and the necessary steps for implementing this design were undertaken. Later, after the program had begun, an article by Eldon Ekwall appeared in *The Reading Teacher*. Ekwall presented a strong case for using learning ratios in the evaluation of remedial reading programs. It was decided to use his evaluation strategy for the present and succeeding years of the program and appropriate adjustments as shown were made in the program objective.

The pre-learning ratio (mean learning ratio before entry) of the program participants is calculated by dividing the mean years in school before entry into the program, i.e.,

$$\frac{\text{Mean Years Achievement Before Entry}}{\text{Mean Years in School Before Entry}} = \text{Pre-Learning Ratio.}$$

The post-learning ratio (mean learning ratio while in the program) is calculated by dividing the mean years achievement while in the program by the mean years in the program, i.e.,

$$\frac{\text{Mean Years Achievement While in Program}}{\text{Mean Years in Program}} = \text{Post-Learning Ratio.}$$

A comparison of the pre- and post-learning ratios will indicate whether or not the program objective has been met, i.e.,

$$\frac{\text{Learning Ratio After Entrance}}{\text{Learning Ratio Before Entrance.}}$$

In the case of this program, the expected ratio was 3:1. The actual learning ratio (composite of both centers) was 12:1 for 1971-1972, 4:1 for 1972-1973, and 9:1 for 1973-1974. The objective ratio was surpassed each year, but the results for 1971-1972 and 1973-1974 show a dramatic increase.

In addition to meeting and exceeding the program objective, there were other notable outcomes of the program:

- When helped to read near their potential, underachievers in the early grades will show a marked improvement in attitude. The educational significance of this finding is the strong implication that many students with poor attitudes toward self and others and school, in general, may be underachievers and can be helped through such remedial reading programs.
- Reading underachievers are found in all ability groups. This seems important inasmuch as most regular classrooms do not individualize instruction and since most remedial reading programs are designed for slow learners.
- Underachievers with "average" or "above average" ability tend to have a large discrepancy between verbal and nonverbal IQ scores when administered an IQ test requiring silent reading. Educationally, this is significant in that there exists a danger that students' true potential may not be recognized since the IQ score is almost always lower than the true IQ.
- Group reading achievement tests do not accurately measure improvement. This fact seems significant since there is a tendency to determine the progress in a remedial reading program based solely upon the results on a standardized group test.

Problems and Solutions

One of the essential aspects of the reading centers was the identification and acquisition of needed and suitable materials and equipment. The instructors had to give the Administration some indication as to what was vital to the success of the centers. Seeking the opinion of those who have used certain teaching materials prevented the purchase of expensive items that could have later proved ineffective.

Another important factor involved with the project deals with the support and understanding of the regular classroom teachers. Unfortunately, many teachers feel that the program is designed to relieve them of the greatest discipline problems or the lowest reading achiever in the class. Although some progress has been made in creating an understanding of the project's purpose, the staff has had difficulty convincing some teachers of the need to remediate reading *underachievers* rather than slow learners. The project teachers have built into the weekly schedules time for conferences with teachers and this has had some positive effect upon getting the teachers to recognize the disabilities of the respective students and to accept the purpose of the program. The project teachers, even though discouraged at times, must not sever continuous communication with the classroom teachers.

Another problem relates to the time involved for the testing necessary for the selection process and the gathering of baseline data. This often results in late commencement of classes. In an effort to begin reading classes earlier in the fall, the centers have been able to use the required spring testing results to partially fulfill the need for information in the fall. This solution, however, created another problem. Those students who were tested in the spring had not suffered an expected summer loss and were less likely to qualify for remedial reading instruction as opposed to those for which spring testing was not possible (transfers, new enrollees, etc.). A solution to this problem has not been reached.

Program Cost and Exportability

A Title III validation team agreed and complied with the project staff's beliefs that any or all of the project's components could be adopted by other schools or school districts. The project was found to be innovative, effective and cost/effective enough to be validated after its third year.

The financial feasibility of exporting the program is dependent, to a great extent, upon the experience and qualification factors of the instructional staff. The bulk of the financial requirements, other than salary obligations, are found in "start-up" costs.

The cost of the program in the Espanola School District has averaged to approximately $26,000 per year with a start-up cost of an estimated $4,000. The start-up cost is included in the average program cost. Both centers have provided services for 169 students in three years. This is an average of 56 participants a year.

To date, the real value of the program, other than the direct value to the participants, has been in serving as a model for other districts attempting to implement similar problems, including special education resource rooms.

Program for Low Achievers in Math

When "an alarming number of students" at the junior high level in four Louisiana parishes failed to meet minimum achievement standards in math, a project was designed and then funded by Title III to develop a comprehensive, student-centered instructional program for these low achievers. By training teachers to use a variety of teaching strategies and by providing students with multi-level, high interest, self-contained instructional materials designed especially to meet their needs, the Program for Low Achievers in Math (PLAM) has successfully raised interest levels and achievement scores in the four Louisiana Parish schools.

The project is currently in operation in the public and parochial schools in the four-parish area of Lafayette, Iberia, St. Martin and Vermilion, located in South Central Louisiana, and plans are presently being formulated to disseminate the project to school systems throughout the State of Louisiana.

Dale Frederick, project director, states the major broad objectives of the project as being:

1. to develop a positive attitude among low achievers toward mathematics and toward school;
2. to develop a positive attitude among teachers of low achievers toward the low achiever and toward the teaching of the low achiever; and
3. to significantly improve achievement in mathematics among low achievers.

The Teacher

The program involves some 40 teachers located in 30 different schools in the four-parish area. During the year the teachers receive intensive inservice training, focusing primarily on the development of teacher skills that relate to understanding the low achiever, diagnosing mathematics needs and identifying activities that are compatible to the low achiever's experiences and to the real world in which he lives.

The project contributes to positive teacher attitudes and methods of relating to these students. This is evidenced by the following sample of teacher comments:

> I make a conscious attempt to meet the needs of these children and extend any help to them in any way that is possible. The greater understanding I have obtained in dealing with low achievers has made teaching them much more rewarding. My classes now have a variety of topics incorporated in each day's lesson. The classes are more activity oriented.

> The inservice training has given me insight into the behavior patterns of these children and conditions which exist in their lives which cause their problems. It has caused me to place greater emphasis on helping the students feel successful in their mathematics class. I have increased the number of group activities and the use of teaching aids and reduced the amount of time spent lecturing.

The Low Achiever

Approximately 3,000 students from the four parishes are involved in the project. The criteria for selecting the students for the project has not been standardized throughout the four parishes. In some cases, students are recommended because they score one grade or more below grade equivalency on a standardized mathematics achievement test, while others are recommended because

This article was submitted by the Project Director, Mr. Dale Frederick, Lafayette Parish School Board, P.O. Drawer 2158, Lafayette, Louisiana 70501.

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deficiencies in mathematics skills are detected from the results of criteria tests. One characteristic of the low achievers that is consistent in all of the parishes, however, is that of the students' failure to meet the minimum standard of the respective schools. Many of these students can be identified as possible dropouts simply because they have for several years experienced consistent failure, not only in mathematics, but in other academic areas as well.

One of the low achiever's most obvious shortcomings is his lack of reading ability. The average textbook is entirely too difficult for the low achiever and is symbolic of his past failures. In order to overcome this, instructional materials designed especially to meet the individual needs of these students were developed. The booklets, containing all the sound fundamental basic mathematics considered essential for daily living, were written in such a manner that each low achiever can experience a degree of success. Most of the lessons deal with a single concept and are usually rather short. In addition to the basic topics such as whole numbers, fractions, decimals and percent, the project staff developed enrichment booklets on topics such as probability, slide rule, planning a trip, adding machines, catalogue shopping and checking accounts.

A Real-Life Curriculum

Since low achievers are usually physical rather than abstract learners, the teachers in the program adhere to the old Chinese proverb that states:

What I hear, I forget.
What I see, I remember.
What I do, I understand.

Students are taught in a laboratory setting where mathematical ideas are introduced and developed through physical objects which the students can touch, manipulate and examine. Rulers, meter sticks and tape measures are used to find distances and to determine the perimeter and area of surface in and out of the classroom. Geoboards are used to make the teaching of fractions and geometry more meaningful. Whenever possible, concrete models are used to introduce new concepts (e.g., napiers rods for multiplication of whole numbers; fraction bars for addition, subtraction and comparing of fractions; percent computer for working with percents).

The low achiever in mathematics needs a lot of drill; however, the drills must be done in such a way that it will be fun and exciting. Most of the drill in the program is done through the use of games and puzzles. For practically all of the units that are taught, there are easy games and hard games, games for individuals, for small groups and for large groups. Each game or puzzle reinforces the student's knowledge of mathematics.

Group activities such as the planning of a vacation are used to stimulate interest and involvement. A group will gather road maps and plot the route, determine the total distance, find the cost of overnight accomodations, gasoline and food, and then determine the cost of the whole vacation. Another group may simulate a drive-in or restaurant situation where they order from menus, while still another group may work with floor plans and catalogues. These activities provide the students with practical and relevant, daily, life-like experiences.

Students use real adding machines

One major breakthrough in relieving the tediousness of working lengthy mathematical problems has been the introduction of calculators and adding machines into the classrooms. This was prompted not only by the desire to eliminate boredom and frustration caused by lengthy calculations with pencil and paper, but also by the realization that pupils will seldom, in adult life, be called on to work lengthy problems without the help of such machines. Students in the project can use calculators or adding machines to make things speedier or easier, or the machines can be used to check work students have already done.

The booklets, transparencies, games, puzzles and manipulative devices developed by the staff are the major source of instructional materials for resources for information and content. Other sources include commercial tapes, filmstrips and mathematics kits.

Although the program stresses individualization, the materials were designed to be very flexible in terms of the many ways in which they can be used. Each student uses the specific materials on a daily basis, either individually, in small groups or in large groups, depending on the skills deficiencies of students and on the specific materials. Most instructional materials (booklets) have been developed primarily so that the student can work independently of the teacher and other students, and can progress at his own rate.

Evaluation and Validation

Student attitudes toward the program have been very positive, which is evidenced by individual comments referring to the excitement of being able to use real-life machines and methods of learning. The absence of textbooks and other traditional tools in the classroom has proven to be effective in terms of increasing student interest, motivation and self-concept. Intensive evaluations done during the project's existence have supported the indications that the project is indeed much more effective than other traditional programs in meeting the needs of low achievers in mathematics.

Further evidence of the success of the project was its validation during the third year (1974). The following is a quote from the validation report.

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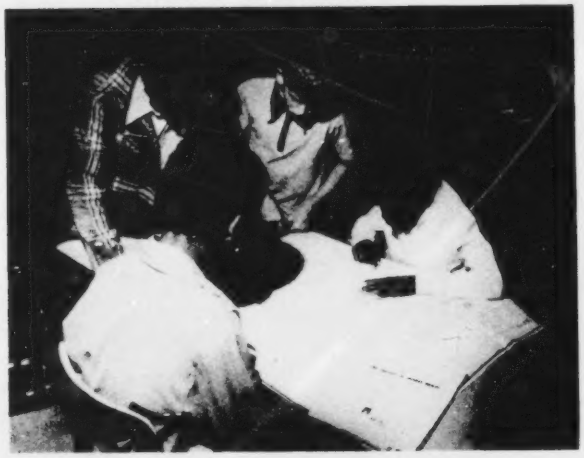

A team plans a trip by studying a map.

The instructional materials developed by the PLAM project staff is the most innovative aspect of the project and could be easily adapted in any school setting in the nation. This mathematical instructional program exhibits high exportability potential but will necessitate an extensive staff development program and release time for developing and preparing materials. The success of a project of this type depends very heavily on the leadership at both the project and individual school levels. School leaders must permit experimentation, changes in schedules, staff interaction, release time for training and planning and, most importantly, they must identify with the needs of students and be supportive of the teacher and the program.

Adoption/Adaption

A great deal of interest toward the program has been shown by school systems in the vicinity of the four participating parishes. One of the neighboring parishes, St. Landry, has already adopted the program. There has also been immediate interest in the program materials by school systems throughout the nation and some foreign countries. Materials developed for the program have been disseminated to 92 school systems and/or individuals located in 32 states in the United States and to schools in Canada, Australia and England. Cost per pupil figures for the project are approximately $34 per student, but this amount includes developmental costs which an adopting system would not have. Estimated adoption costs per pupil are $25, and implementation of only the basic elements of the project is possible for as low as $10 per pupil.

The overall success of the program can best be summarized by the following example of student progress, as related by Mrs. Lee Mauldin, one of the teachers in the program.

September: Johnny walked in with a chip, no, a plank, on his shoulder. He had no paper, no pencil, and furthermore wasn't going to do "no work." The teacher said, "Johnny, I'm so glad you could be in this class, since you obviously hate school." At this point Johnny began to listen because it was the first time a teacher had said something he believed. She went on, "There will be no textbook, although we will work hard. There will be lots of games and fun." By now, Johnny was really listening but he didn't really believe that it would actually happen.

May: Johnny ran into the room and shouted: "Mrs. Mauldin, do you want me to get out the materials for my team?"

Comprehensive Client-Centered Basic Skills Center Project BASIC Reading

In early 1970, the Cedar Rapids Public Schools formed a Primary Reading Task Force to conduct an indepth investigation aimed at the improvement of pupil reading skills. The results of the Task Force's efforts pointed directly to the need for a district-wide staff development project in order to provide teachers with intensive training in the teaching of reading. ESEA Title III furnished the means through which this need became a reality.

Teacher Most Important Factor

In their review of reading research, the Task Force found that in general the classroom teacher is the single most important factor in whether, and how well, a child learns to read (Chall, 1966). More specifically:

(1) Teachers must be acquainted with present methods and materials for teaching reading, since no one method works for all children. (Bond and Dykstra, 1967)

(2) Teaching should be carried on by enthusiastic teachers trained in identifying reading skills and in matching problems with appropriate techniques and materials. (Bond, 1970)

(3) Training teachers in motivational techniques can increase school achievement. (Homme, 1965)

Specific courses in the teaching of reading appeared in the credentials of only one-third of the Cedar Rapids teachers with less than two years of experience who were teaching reading in grades one through four.

Further information about Project BASIC Reading may be obtained from Mr. Paul Diaz, Project Director, Educational Service Center, 346 Second Avenue, S.W., Cedar Rapids, Iowa 52404.

Recognizing the need for teacher training in methods, materials and motivational techniques, the Task Force saw that one additional element was missing. Where could the teacher get the time and help to translate theory into practice? Tutors, both high school students and community volunteers, were found to be a large part of the answer.

Project Purpose and Goals

The ultimate success of a reading project must be measured in the improvement of pupil reading skills. In this project, five staff development objectives contribute to this ultimate goal.

While providing inservice to help teachers increase awareness of individual needs, the project also establishes procedures for efficient classroom time management through instruction in *ad hoc* grouping, in order to furnish opportunities for this individualization of instruction. Teachers are also introduced to a variety of individual student learning alternatives for those times when teachers work with other groups of students. One essential element of the project is the involvement and assistance of volunteer tutors. While these tutors are recruited and trained, the teachers are given instruction in how to best utilize the tutors in the classroom.

Program Description

The project staff has planned, packaged and implemented a cohesive inservice program in which teachers have been provided with specific tools for better reading instruction. With the help of the volunteer tutors, the teachers can use criterion-referenced diagnostic tests for assessing word-attack skills, Reading Skill Task Files indexed to specific reading needs, Learning Skills Stations Notebooks and Reinforcing Events Areas Notebooks.

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Junior high volunteers find time in their busy class schedules to help first through fourth grade children with their decoding skills.

The inservice training of teachers has centered around the theory, use and subsequent application of these tools in Demonstration Centers. Teachers learn to administer criterion-reference diagnostic tests through the Croft In-Service Program in Word-Attack Skills. Results of these diagnostic tests have been keyed to two exportable packages of teacher's techniques for skill reinforcement. These packages are referred to as Reading Skill Task (RST) Files and Reading Skill Station (RSS) Notebooks. Implementation of personalized instruction is achieved through training teachers to use *ad hoc* grouping techniques and Reinforcing Event Areas.

Strong project support is furnished to a Demonstration Center School during a nine-week cycle. Prior to the institution of *ad hoc* grouping, project staff consult with the school's principal, teachers, in grades one through four, the Instructional Materials Center Specialist and any other educational specialists regularly functioning in the building. Schedules, functional relationships and use of facilities are planned.

Total project support comes into focus in several different ways. A team composed of the Project Reading Specialist, para-professionals and the project secretary assists the teaching staff in gathering baseline data about the word-attack skills competency of each pupil in grades one through four. The Demonstration Center staff participates with the appropriate school staff in a half-day workshop to 1) form instructional groups, 2) discuss management techniques and 3) select learning materials and instructional techniques appropriate to skills needs of the students. The Volunteer Coordinator cooperates with the school principal and the Parent-Teacher-Student Association (PTSA) in recruiting and training volunteers. Some of these volunteers work actively in cooperation with the *ad hoc* grouping team to support the children's learning activities through tutoring, record keeping and the production of learning materials. The Contingency Management Specialist and her Associate produce a set of practice materials specifically designed to support the skills being taught in the *ad hoc* grouping sessions. In addition, the Contingency Management Specialist consults with the Demonstration Center School staff as needed in designing reinforcement schedules and Reinforcing Events areas to facilitate behavior and/or learning management. The Demonstration Center staff provides support in record keeping, tutoring and specific instruction planning, until by the ninth week of *ad hoc* grouping, the school's staff is self-sufficient. Services after the nine-week period are provided on a need basis.

Project Strengths

One of the major strengths of the project has been its operation as an integral part of the regular organizational structure of the district, rather than as a separate effort. This has been accomplished through wide involvement of all levels of school staff in decision making.

Information gathered from the staff is evaluated and used to restructure project operation. The project staff perceived early in its operation that individual responses are essential to the implementation of project goals. The consistent, observable use of input as a guide to project management has encouraged a substantial personal and professional commitment to project efforts by LEA teachers, administrators and volunteers.

A ten-member Teacher Advisory Committee (TAC) to the project has been a particularly effective group for facilitating commitment through the process of gathering information, making suggestions for operational changes and involving other staff. The TAC has assisted project staff in changing project-sponsored inservice from a program serv-

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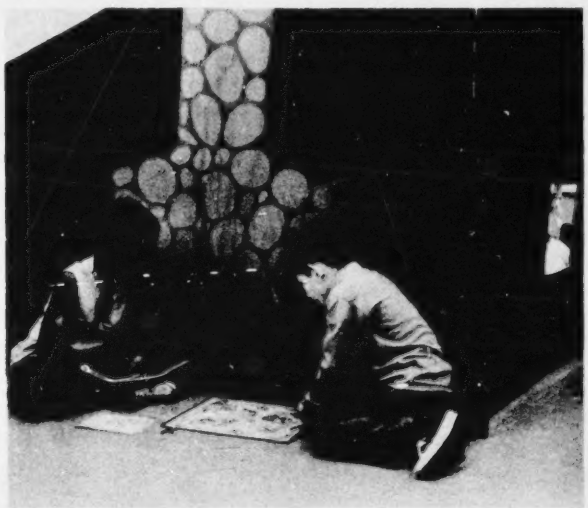
Children using Reinforcing Events (RE) Areas, which have been planned by classroom teachers and the project's Contingency Management Specialist. The areas are constructed by a Teacher Associate who assists the Contingency Management Specialist.



ing about one-fourth of the LEA teaching staff, and designed and managed by project staff, to a third-year structure designed and carried out by 32 teachers, and serving all other teachers in the target group.

The project's management has provided a model for techniques which have been incorporated into other LEA operations. An emphasis on participatory management has resulted in the development of a Request for Performance (RFP) System which permits the staff to collectively plan a monthly task which is related to project objectives. The PERT system for planning activities is another management technique which has been adopted by other LEA projects after its effectiveness was displayed in project planning.

The CIPP (Context, Input, Process and Product) model of evaluation has contributed to both the management and the evaluation of the project. The project's evaluation design has effectively provided not only product information, but also the process information necessary to redesign all phases of project activity. This evaluation design has been adapted for use in other LEA Title I and Title III projects.

Project Contributions to Classroom Instruction

Project-sponsored activities carried on over a three-year period have resulted in a significant growth of pupil reading ability. Those students involved in *ad hoc* grouping have showed a statistically significant increase in word-attack ability over a control group of other students in the LEA. Teachers are familiar with and utilize many more auxiliary instructional materials related to reading and members of the community are involved in helping young children learn to read.

All of these results are testaments to the success and effectiveness of the project and its methods.

Communication

Effective communication has been both a major emphasis and a major problem throughout the life of the project. While the problem of getting sufficient information to and from the right people at the right time has not been completely solved, the following strategies have led to partial solution:

Telephone HOTLINE. Concerned members of the community as well as professional staff, are encouraged to call into a recording system any questions or information related to the project. In most cases, HOTLINE messages are answered within 24 hours and use of HOTLINE has been adopted by the LEA.

Project Newsletter. A four-page newsletter, *Hear-Say,* reporting project activities is distributed to teaching staff, administrators, members of the Board of Education, parents of children enrolled in Demonstration Center Schools and Community Advisory Council members.

Volunteer Newsletter. A two-page newsletter is sent four or five times a year to administrators, members of the Board of Education, volunteers and their cooperating teachers. This publication has helped to provide a cohesive communication base as the volunteer program has been assimilated into LEA operation.

Community Advisory Council. Community input and advice is required for federally funded projects. The dynamics for creating a functional advisory group with sustained interest has posed a continuing problem. A partial solution for this project was a shift from a non-specific and minimally functional group, to a group recruited from active school volunteers.

Ad Hoc Committees. Short-term work groups, formed to achieve specific goals, have proved effective in making plans, carrying out activities and evaluating progress. This approach has been widely adopted by other LEA projects and departments.

Teacher Advisory Committee. A group of seven classroom teachers, two Reading Specialists and an elementary principal has provided guidance for major project activities. The principal regularly reports project progress to the principal's organization and relays to project

staff the advice of the principal's group. Teachers on the committee have not only provided advice and information from their personal and professional perspectives, but have also informally interviewed all school staff in grades one through four to gather baseline information for planning project inservice.

Administrative Reports. All major project reports are presented to upper levels of administration and to the Board of Education. In addition, project publications are routed to these individuals.

Validation

During three years of operation, the project has developed 1) effective management and evaluation structures, 2) needs-based teacher inservice for all teachers of grades 1-4, 3) a management system for teaching word-attack skills to meet children's specific needs, 4) supportive materials for teaching skills, and for positive motivation, and 5) a program for recruiting and training volunteers to support classroom instruction.

In May of 1974, the project received validation and subsequently was granted funding for a fourth year of operation as a Developer-Demonstrator project. During this fourth year of operation major project objectives will include: 1) research and evaluation, 2) continued support to LEA Demonstration Center Schools, 3) editing of materials developed by the project and 4) assisting two nearby school districts in the adoption of activities developed by the project.

Intensive Elementary Language Arts Program

The Sunman-Dearborn Community School Corporation has developed the Intensive Elementary Language Arts Program to improve the basic communication skills of primary students. The main theory behind this Title III project is that if a student learns to read well by the end of his primary school years, he will meet with greater success in all subjects at the intermediate grade level and beyond. The project serves 540 students in grades one through three in two Indiana elementary schools and involves 18 teachers and seven aides.

Objectives

The project objectives, other than the improvement of basic communication skills, include providing a curriculum which is more relative to student needs and a learning atmosphere in which the student is neither given materials which are beyond his ability nor forced to wait while other students catch up.

Other stated objectives are to improve student interest, cooperation and self-concept, to provide comprehensive individual appraisal of student progress, to develop a greater intercommunication between teachers in order to share materials and accurately evaluate each student and to develop a closer relationship and more frequent contacts between parents and teachers.

Integration of Subjects

In grades one and two, the program is primarily based on spending approximately 80 percent of the instructional time in the area of language arts and the remaining 20 percent in the area of mathematics. This does not mean that the content area subjects of science, social studies and health are not taught. Instead of splitting the day into periods of 50 minutes for each of these subjects, they have been integrated into the language arts program and are taught as if they were language arts. This can be done with the aid of Alpha One and the Singer Multi-media Kits in these areas of science, social studies and health.

The Alpha One program lends itself well to integration of content subjects into the language arts. An example of this is: Mr. T has tall teeth; the teacher has an excellent opportunity to work in lessons about the teeth. Another example is: Little Miss I has a short sound as in itch or Indians; this provides an opportunity to do a unit about Indians. Mr. N has a noisy nose; a lesson about sound or the ear could be centered around this.

The filmstrips, cassette tapes and large picture-study prints of the Singer Multi-media Kits can easily be used in these lessons developed in Alpha One or in an audio-visual learning center devoted to a content subject.

The third-grade program is a transitional one in which there is some integration of subjects but also some time when the subjects are taught separately. This step is necessary because fourth-grade students are placed in a graded system with time blocks for each subject.

Alpha One

Alpha One is a phonetics program in which children are taught to use decoding to figure out words. Each letter has a set of key words which use the sound of the letter. For each letter there is a greeting card on which is printed the raised letter and a short poem about the letter. Students have Chatterbooks which reinforce the skills taught and two hard-back books with stories about the "letter people" are also used.

Information for this article was submitted by Lee Atkins, Project Director, Sunman Elementary School, Sunman, Indiana 47041.

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The 26 letters of the alphabet are made into cartoon characters with human characteristics — bad as well as good. The consonants are male figures and the vowels female figures. The first ten consonants can be identified with the body or clothing, i.e., Mr. M has a Munching Mouth, Mr. B has Beautiful Buttons, etc. Then the five vowels are introduced with their short sounds, i.e., Miss A: a'choo's, Miss E: exercises, etc. Then the rest of the consonants are introduced.

Once the vowels have been introduced, the children start decoding simple words. To decode a word, the letters must be put in the correct boxes — beginning box, belonging box (always a vowel) and ending box. Then the sounds are put together to find the word.

After all the letters have been introduced and reviewed, the rules are given for long vowels, blends, diagraphs, silent "e", etc., through stories about the "letter people." This provides the student with some sort of logic about why these rules exist. The children enjoy acting out these stories as well.

Teacher Aides

Teacher aides are an important part of this program. First- and second-grade teachers have an aide for half a day and third-grade teachers have an aide for two periods a day. The aides work with students, grade papers and do clerical work as needed by the teacher to which the aide is assigned.

The aide works in several capacities with the students. At times the aide may work individually with a student who needs extra help. Other times the aide may work with groups in reading or mathematics. Sometimes the teacher works individually with certain students or is in a parent-teacher conference; at these times the aide will work with the class as a whole. In some classrooms, the aides work with students who need help at learning centers, help students in individualized reading or with S.R.A. materials.

The presence and involvement of these aides give students the benefit of having two adults to teach them in the classroom. Aides also type tests and special ditto worksheets, make duplicate copies of materials, grade tests, worksheets and workbooks as well as keep the supply center for the program in each building orderly.

Teaching Methods

All teachers use the same basic materials yet each classroom teacher has her own teaching methods. Alpha One is used in all the first grades as developmental instruction and is reviewed through the Phonics for Fun program in the second grades. All of the second- and third-grade classes are using an individualized reading approach.

The basal text adopted by the school corporation is used in the following manner. The children progress at their own rate through each book with six steps: first, they read the story; second, they must know the vocabulary for that story; third, they do ditto worksheets that go with the story; fourth, they do the workbook pages which follow the story; fifth, they take the test over the story and the sixth step is to go on to the next story. Each step must be completed correctly before the next step is attempted. The steps are the same for each class but the teachers may vary the order according to what will work best in their classroom.

Some of the first-grade teachers have reading and mathematics sessions in small groups, while others have individualized both reading and mathematics. All teachers use sight vocabulary to some extent and some of the teachers have incorporated language experience into their classes. This involves the children dictating a story and then the class learning to read the story together. Other teachers are using learning centers to help teach the students and make learning more interesting. All of these methods are working well and the teacher does best with whichever method is most comfortable for her.

Learning Centers

Some classrooms are using learning centers to give children more instructional time and to create more interest in learning. The range of activities includes: art, mathematics, science, health, social studies, reading readiness, listening, library, reading, games and audio-visual activities such as Multi-media Kits or Craig Readers. Generally the class is split into groups. One group works with the teachers, a second group may work with another teacher or aide or have free time, a third group does seat-work at their desks and a fourth group goes to the centers. Usually no more

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than three children are assigned to one center at a time. Then, after a given amount of time, the groups are rotated. This continues until each group has been to all four types of learning situations and after each child has been to all the centers, the activities for the centers are changed to avoid repetition.

Progress Reports

Since the program is non-graded a new report card had to be advised. All three grades are using the same progress report on which each major area is listed and then broken down into the skills of which the areas are composed. The areas are: language arts, reading, mathematics, social studies, science, health, physical education, music and art. There is also a section for social growth, behavior, etc. There are three marks given: "working at ability," "needs to improve" and "extremely good work." Only those areas or skills covered in that particular nine-week grading period are marked on the progress report. Each student is judged only on his abilities and work, not in comparison to other children's abilities or work.

Parent Involvement

An orientation meeting is held for parents each fall at which time the program is explained and any questions are answered. Then the parents meet with the teacher to whom their child is assigned. The most active part of the parent participation program is the parent-teacher conferences, which are held every nine weeks. A schedule is sent home with available times for the parent to come in to talk with the teacher about his child's progress. During the parent-teacher conference the parent is given the progress report and any papers the student has finished. The teacher and parent discuss the child's progress both in class and at home. Ninety percent of the parents involved in the project participate in these conferences.

Parents are welcome to visit classes during the day or at open houses in the evening. The parent who visits a classroom is often asked for help by the children, who see any adult as a source of aid. Parents are also represented in the advisory committee for the project which meets once a month to discuss progress and problems.

Evaluation

The students in the program are constantly evaluated on the basis of individual as well as group tests. The tests are informal and standardized and are administered in the Fall and Spring of each year. All test results are put into the student's permanent record.

In the Fall, the first graders are given the *Metropolitan Reading Test* to measure improvement in vocabulary and comprehension. Both grades are also given the *Inventory of Phonetic Skills* to measure phonetic skills and the *Gilmore Oral Reading Test* to measure oral language development.

The third and fourth grades are given the *Iowa Test of Basic Skills* to test overall achievement. The results of the 1973-74 testing showed that the entire third grade scored higher than the previous year's third grades on the national norms in all areas of the *Iowa Test* except usage, capitalization and punctuation.

The results of the second-grade class as a mean on the *Gilmore Oral Reading Test* was 3.6 and the national norm was a 2.8 grade level. The results of the second-grade class mean for the *Gates-MacGinitie Reading Test* was 3.4 and the national norm was 2.8 grade-level equivalent. The first-grade class results was a mean of 1.9 on both tests and the national norm for both was 1.8 grade-level equivalent.

These comparisons and the increase in student basic skills performance at the classroom levels are a good indication of the success and effectiveness of the project in meeting its objectives and goals.

ESEA Title Projects in Basic Skills

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1974 VALIDATED PROJECTS IN BASIC SKILLS

Reducing Pupil Learning Reading Deficits Norman A. Pear, Project Director, Mojave Unified School District, 3500 Douglas Ave., Mojave, CA 93501.

Reading (Math) Improvement through Home Help, Doris Wheeler and Hannah D. Henderson, Project Directors, Escondido Union School District, 5th and Maple Sts., Escondido, CA 92025.

Projects Advancing Reading Achievement and Developing Ego-Strength (PARADE), Joan Stokes, Project Director, U.S. Air Force Academy Public Schools, U.S. Air Force Academy, CO 80840.

Junior High School Reading Laboratory, Tommie Calhoun, Project Director, 1201 S. Vine St., Urbana, IL 61801.

Comprehensive Client-Centered Basic Skills and Staff Development Center, A. P. Diaz, Project Director, Cedar Rapids Community School District, 346 Second Ave., S.W., Cedar Rapids, IA 52404.

Program for Low Achievers in Math, Mr. Dale Frederick, Project Director, Lafayette Parish School Board, P.O. Drawer 2158, Lafayette, LA 70501.

PRIDE—Proving Reading Impetus through Developmental Experiences, Walter J. Schumacher, Project Director, Wayne County Intermediate School District, 33030 Van Born Rd., Wayne, MI 48184.

TMR Language Development, Mrs. Michaela Nelson, Project Director, Educational Service Unit #14, P.O. Box 414, Sidney, NB 69162.

Kindergarten—3 Reading: Program Development through Process, Nicholas Mitcho and Dorothy Wriggins, Project Directors, Glassboro Public Schools, Annex A, Delsea Dr., Glassboro, NJ 08028.

Espanola Reading Centers, Robert Vigil, Project Director, Espanola Municipal Schools, P.O. Box 249, Espanola, NM 87532.

ALABAMA

Project METRIC (Individualized Metric Teaching System), Dr. Arthur Dennis, Superintendent, Cullman City Board of Education, P.O. Box 887, Cullman, AL 35055.

Project TALK (Talk-Ask-Listen-Know), Mr. Frank Earnest, Jr., Superintendent, Dallas County Board of Education, Courthouse, Selma, AL 36701.

Project METRIC, Dr. G. L. Farmer, Superintendent, Florence City Board of Education, 541 Riverview Drive, Florence, AL 35630.

Language Arts and Reading Reorientation, Dr. Mort Glosser, Superintendent, Gadsden City Board of Education, P.O. Box 184, Gadsden, AL 35902.

Homewood Individualized Reading Program, Mr. G. Virgil Nunn, Superintendent, Homewood City Board of Education, P.O. Box 6066, Homewood, AL 35209.

A Diagnostic and Prescriptive Approach to Teaching Reading and Mathematics, Mr. James L. Nolen, Superintendent, Opp City Board of Education, P.O. Box 428, Opp, AL 36467.

ARKANSAS

High School Reading Program for Deprived Students, Mr. Carl Steward, Augusta Schools District, Augusta, AR 72006.

School-Community Involvement Project for Culture and Curriculum, Mrs. Janet Prince, Eudora School District, 566 South Mabry Street, Eudora, AR 71640.

Center for Development of Relevant Mathematics for Non-College Bound High School Students, Mr. Gene Catterton, Wynne School District, P.O. Box 69, Wynne, AR 72396.

Diagnostic-Prescriptive Reading Instruction Development, Mr. John Barker, Osceola School District, P.O. Box 628, Osceola, AR 72370.

Service to Advance Reading Teacher Skills, Miss Kathleen Schaefers, Valley Springs School District, P.O. Box 86, Valley Springs, AR 72682.

Multi-Level Alternate Instructional Program in Mathematics and Language Arts, Mrs. Marietta Hutchison, Morrilton School District, East Side Demonstration School, Morrilton, AR 72110.

CALIFORNIA

Reading Development Project, Mrs. Pat Seeley, Office of Los Angeles County Superintendent of Schools, 9300 E. Imperial Hwy., Downey, CA 90242.

Reading Program: Exploration of Parents Occupations, Mrs. Shirley Cronin, Alvord Unified School District, 10365 Keller Ave., Riverside, CA 92505.

Secondary Reading Demonstration Centers, Dr. Lois V. Arnold, San Diego Unified School District, 4100 Normal Street, San Diego, CA 92103.

Reading Improvement: Diagnosis, Prescription, Enhancement, Dr. Julianna M. Hamann, P.O. Box 220, Santee, CA.

RAMAC—Reading and Mathematics Acceleration Center, Louie J. Grab, Freeport Elementary School, 2118 Meadowview Rd., Sacramento, CA 95832.

COLORADO

Staffing Plan for Upgrading Rural Schools (SPURS), Marion D. Young, Superintendent, Arapahoe County, P.O. Box 68, Bennett, CO 80102.

A Thematic Approach to Reading Utilizing Library Media, Ms. Patsy Balcom, Director, Poudre School District R-1, 2407 LaPorte Avenue, Fort Collins, CO 80521.

Item Pool for Basic Skills, Mr. Franklin Wood, Director, Jefferson County Public Schools, 809 Quail St., Denver, CO 80215.

Project Media Literacy: A Media Education Program, Ms. Linda Jones, Director, Adams County School District 12, 10280 North Huron Street, Denver, CO 80221.

Grades 6-12 Continuous Progress Mathematics Program, Bill McCurley, Director, Arapahoe County School District 28J, 1085 Peoria Street, Aurora, CO 80010.

Training in Oral Language Development (TOLD), Ronald Call, Director, South Platte Valley School District, 900 State Street, Fort Morgan, CO 80701.

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CONNECTICUT

Project RELATE, Mr. Joseph Lipp, CIRP, South Hall, University of Bridgeport, Bridgeport, CT 06602.

ANISA, Dr. Richard Lincoln, Board of Education, 945 Mountain Road, Suffield, CT

Bi-Cultural Early Childhood, Miss Virginia Lity, Board of Education, 45 Lyon Terrace, Bridgeport, CT 06604.

Project PLUS, Miss Sally Hammond, Memorial School, Hubbard Street, Middlefield, CT.

SHIP, Mrs. Louise Wickware, Thompson Memorial School, North Grosvenordale, CT 06255.

DELAWARE

Project AID, Mrs. Linda G. Hudson, Intermediate Unit, Lord Baltimore Elementary School, Ocean View, DE 19970.

RACE—Reading to Advance Career Excellence, Dr. Ann Houseman, Delcastle Technical High School, 1417 Newport Road, Wilmington, DE 19804.

FLORIDA

Brevard Inservice Teaching Center, Dr. Vernon L. Boushell, 905 Pineda Street, Cocoa, FL 32922.

Quinmester Instructional Management Model, Mr. Eldon Padgett, 1410 N.E. Second Avenue, Miami, FL 33132.

School Volunteer Project, Dr. Audrey Jackson, 1410 N.E. Second Avenue, Miami, FL 33132.

Improved Learning through Personalized Instruction, Mrs. Carole McMillan, 1741 Francis Street, Room 11, Jacksonville, FL 32207.

Children's Concerns—A Curriculum Base, Mr. Charles Gadd, Howard Middle School 1108 N.W. 16th Avenue, Ocala, FL 32670.

Success in Mathematics through Aural Reading Techniques (SMART), Mr. Jack Duncan, P.O. Box 1910, Daytona Beach, FL 32015.

MARC: A Multisensory Approach to Reading and Reading Readiness Curriculum, Mrs. Linda Anderson, P.O. Box 98, Crawfordville, FL 32327.

GEORGIA

Individually Prescribed Elementary Instruction Program, Mrs. Ola R. Dupree, Lowndes County Board of Education, Box 1227, Valdosta, GA 31601.

HAWAII

Redevelopment of Language Materials for Unsuccessful Learners in Regular Schools, Dr. Arthur R. King, Jr., University of Hawaii, Curriculum Research and Development Group, 1776 University Avenue, Honolulu, HI 96822.

Hawaii English Program/Secondary, Dr. Arthur R. King, Jr., University of Hawaii, Curriculum Research and Development Group, 1776 University Avenue, Honolulu, HI 96822.

IDAHO

Communication Skills Improvement Center, Mrs. Erva J. Verner, MERC 321 3rd Street, South, Nampa, ID 83651.

Educational Service Center for Reading, Mr. Don Applegate, P.O. Box 1238, Coeur d'Alene, ID 83814.

Boise Communication Skills Improvement Model, Dr. Marlyn Willardson, 1207 Fort Street, Boise, ID 83702.

Primary Development Program, Mr. Robert L. Wecker, 6400 Overland Road, Boise, ID.

Communication Skills Development Rural Students, Mr. Robert Howard, Arco, ID 83213.

Seeking Solutions to Pupil Reading Deficiencies, Mr. Will Brown, Rt. 1—Pioneer Elementary School, Weiser, ID 83672.

SPURT—Speed, Power, Understanding Reading Techniques, Mr. David C. Baumgartner, Cottonwood, ID 83522.

ILLINOIS

Pre-Algebra Development Center, Mrs. Dorothy Strong, Board of Education Area A, 1750 East 71st St., Chicago, IL 60601.

Comprehensive High School Reading Program, Mr. Charles L. LaForce, 1830 West Monterey, Chicago, IL 60643.

Matteson Four-Dimensional Reading Program, Dr. Susan Gross, Matteson School District 162, 21244 Illinois St., Matteson, IL 60443.

T.A.L.K. (Teaching Activities for Language Knowledge), Mrs. Joey Vee, Martin Luther King School, 1306 South Court St., Rockford, IL 61102.

Commonground Experience – Improving Human Relations through Developing Communication Skills, Mr. Charles Dyson, Rock Island Public School District 41, 541 21st St., Rock Island, IL 61201.

St. Anne Reading Model, Mr. Patrick E. Welch, St. Anne Community High School District 303, 650 West Guertin St., St. Anne, IL 60964.

Junior High School Reading Laboratory, Ms. Tommie Calhoun, Urbana School District 116, 1201 South Vine St., Urbana, IL 61801.

INDIANA

Summer Television Arithmetic and Reading, Dr. Jack Humphrey, Evansville-Vanderburg Corporation, 1 S.E. North Street, Evansville, IN 47708.

Intensive Elementary Language Arts, Miss Lee Atkins, Sunman Elementary School, Sunman, IN 47041.

IPI Mathematics, Mr. Ed Garrigan, Paoli Community Schools, Elm St., Paoli, IN 47454.

IOWA

DISTAR—Assistance in Communication Skills, Mr. Tim Quarton, Davenport Community School District, 1001 Harrison Street, Davenport, IA 52803.

ERA—Early Reading-Readiness Achievement, Ms. Frances Long, Ames Community School District, 120 South Kellogg, Ames, IA 50010.

Project BASIC Mathematics, Mr. Raymond Vander Weil, Cedar Rapids Community School District, 346 Second Avenue, S.W., Cedar Rapids, IA 52404.

Modality Oriented Reading Instruction, Mr. Richard Zimmer, Table Mound Elementary School, 100 Tower Drive, Dubuque, IA 52001.

Reading Expansion Alternatives, Dr. Glen Easterday, Linn-Mar Community School District, Box 307, Marion, IA 52302.

Combined Reading Approach with Reading in the Content Areas, Mr. George Kruger, South Tama County Community School District, 215 West Ninth, Tama, IA 52339.

A Study to Determine the Feasibility of Implementing a Developmental Reading Program, Ms. Sally Sundberg, Madrid Community School District, Highway 17 North, Madrid, IA 50156.

KANSAS

Preschool Reading Exposure Program, Mrs. Dorothy Wise, Unified School District No. 204, Northwest School, Pratt and Neconi, Bonner Springs, KS 66012.

KENTUCKY

The Carroll County Project for Increasing Reading Proficiency Through Interest Motivation, Mr. Robert May, Box 370, Carrollton, KY 41008.

LOUISIANA

Communication Skills—Primary Level, Mrs. Elizabeth Jones, Beauregard Parish Schools, P.O. Drawer 152, DeRidder, LA 70634.

A Metric Program for Study, Mr. Will Rogers Young, Franklin Parish Schools, P.O. Box 349, Winnsboro, LA 71295.

Individualized Reading Instruction for Students, Mr. Walter Gatlin, Rapides Parish Schools, Sixth and Beauregard Street, Alexandria, LA 71301.

Correlated Exemplary Compensatory Education, Mr. Frank Futch, Union Parish Schools, P.O. Box 338, Farmerville, LA 71241.

Reading—Oral Communications, Mr.

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Doyle McDade, West Carroll Parish Schools, P.O. Box 109, Oak Grove, LA 71263.

MARYLAND

Operation Somerset, Miss Margaret Krauss, Somerset County Board of Education, Prince William Street, Princess Anne, MD 21853.

MICHIGAN

BASICS—Building and Applying Strategies for Initial Cognitive Skills, Mr. Jack Brown, Washtenaw Intermediate School District, 1819 South Wagner Road, Ann Arbor, MI 48103

Learning Environment and Desire Enhance Reading, Ms. Pat Vickery, Clarenceville Public Schools, 28830 West Eight Mile Road, Farmington, MI 48024

Contract Learning for Educable Mentally Retarded, Mr. Robert Whitecraft, Grand Rapids Public Schools, 1053 Iroquois S.E., Grand Rapids, MI 49506.

Project Read and Math, Inkster Public Schools, 29115 Carlysle, Inkster, MI 48141

Math Performance Objectives as a Means of Effective Instruction in Mathematics, Menominee School District, 1800 18th Avenue, Menominee, MI 49858

Implementing the Wisconsin Reading Design K-3, Ms. Sandra Negley, Niles Community Schools, 720 East Main Street, Niles, MI 49120

Vocational Reading Power, Dr. Roy J. Butz, Oakland Schools, 2100 Pontiac Lake Road, Pontiac, MI 48054

Instructional Management Model for Reading, Ms. Elaine Demos, Waterford Public Schools, 3579 Cass-Elizabeth Road, Pontiac, MI 48054

Increased Pupil Competency Through Staff Differentiation, Mr. Lloyd McPherson, Lansing Public Schools, 333 Dahlia Street, Lansing, MI 38910

Open Concept School for Indian Education, Mr. Steven R. Malmberg, Sault Ste. Marie Public Schools, 408 East Spruce Street, Sault Ste. Marie, MI 49783

Guaranteed Reading Improvement by Performance Contract, Mr. Ronald Kail, Sault Ste. Marie Public Schools, 408 East Spruce Street, Sault Ste. Marie, MI 49783

Computer Oriented Management of Educational Talent, Mason County Central Schools, Scottville, MI 49454

PRIDE—Providing Reading Impetus Through Developmental Experiences, Mr. Walter J. Schumacher, Wayne County Intermediate School District, 33030 Van Born Road, Wayne, MI 48184

MINNESOTA

Individualized Instruction in Arithmetics Through Parental Involvement, Mr. W. J. Murphy, 13th Avenue and 7th Street South, St. Cloud, MN 56301

Career Lab in Mathematics, Mr. James Avant, 6425 West 33rd Street, St. Louis Park, MN 55426

Project A.R.T.—Affective Reading Transfer, Mr. Peter J. Grover, Box 157, Rose Creek, MN 55970

Every Secondary Teacher: Reading Teacher, Mr. Fred Rohde, White Bear Senior High, 5040 Bald Eagle Avenue, White Bear Lake, MN 55110

MISSISSIPPI

Diagnosis, Prescription and Treatment, Mrs. Maureen Estes, Canton Separate School District, 408 Lincoln Street, Canton, MS 39046

Communications System Project, Ms. Kathryn F. Roberts, Greenwood Separate School District, Box 1497, Greenwood, MS 38930

Individualized Instruction in Junior High School, Mr. E.E. Caston, Hattiesburg Separate School District, 846 Main Street, Hattiesburg, MS 39401

Student Action Team Teaching, Mr. Marion L. Hayes, Jefferson County School District, Fayette, MS 39069

Special Projects Initiating Communication Excellence, Savan Tynes, Clarksdale Separate School District, P.O. Box 1088, Clarksdale, MS 38614

Remedial Experiences for Disadvantaged Students, Mrs. Etoile L. Hopkins, Forest Separate School District, 511 Cleveland, Forest, MS 39074

Rural Innovations in Developmental Education, Ms. Linda Penton, Hancock County School District, Bay St. Louis, MS 39520

MISSOURI

Improving Secondary Reading, Dr. Lillian Schippers, 8701 Mackenzie, St. Louis, MO 63123

Self Discovery Approach to Mathematics Program, Mrs. Clarabel Julian, 3500 East Meyer Boulevard, Kansas City, MO 64132

Individualized Mathematics, Mr. Manley Vance, 14 South Main, Liberty, MO 64068

Individual Instruction Center, Dr. Marlin K. Jackoway, 115 Harding Avenue, Maryland Heights, MO 63043

Individualized Mathematics Program, Ms. Thelma McCray, Jamesport, MO 64648

Reading Expansion and Enrichment Program, Mr. Gordon Warren, Box 8, Auxvasse, MO 65231

Improving Teacher Skills Reading Instruction, Mr. Tom J. Krebs, 1600 Vandover Road, Fenton, MO 63026

Upgrading Reading in Content Areas, Mr. Donald W. Schaeffer, 2221 High School Drive, Brentwood, MO 63144

Prevention, Diagnosis of Reading Problems, Mrs. Norrene Farley, 1231 South Windsor, Independence, MO 63144

Intermediate Grades Accelerated Reading, Ms. Villa Ann Glenn, Nixa, MO 65714

Right To Read Reading Clinic, Dr. John Borsa, 726 Hanna Road, Manchester, MO 63011

MONTANA

The Metric System—Development and Implementation, Mr. Lloyd Ellingsen, School District #2, 101 10th Street West, Billings, MT 59102

Math Lab Curriculum for the Junior High, Mr. Daniel T. Dolan, Columbus Junior High Schools, Columbus, MT 59019

Educational Remediation for Children with Learning Deficits Through Precision, Mr. Ray Beck, Great Falls Public Schools, Box 2428, Great Falls, MT 59403

NEBRASKA

Right To Read, Mrs. Doris Forrest, Bellevue Public Schools, Box 458, Bellevue, NB 68005

Math Video Packages, Mr. Russ Thompson, Arnold Public Schools, Arnold, NB 69120

NEVADA

Individualized Basic Skills Laboratories, Dr. Vernon C. Rowley, Research and Development, Carson City School District, P.O. Box 603, Carson City, NV 89701

Intermediate English Project, Mr. Dennis Ortwein, Federal Programs Coordinator, Clark County School District, 2832 E. Flamingo Road, Las Vegas, NV 89121

Reading Program for Middle Schools, Mr. Dennis Ortwein, Federal Programs Coordinator, Clark County School District, 2832 E. Flamingo Road, Las Vegas, NV 89121

Interdisciplinary Reading Program, Mr. Richard Wright, Federal and Vocational Programs, Washoe County School District, 425 E. Ninth Street, Reno, NV 89502

NEW HAMPSHIRE

Phonics, Individualized-Levelized, Ms. Ann Holloran, Mary A. Fisk School, 16 Main Street, Salem, NH 03079

Language Arts Through Typing, Ms. Ann McDonald, Marsh Road, Pelham, NH 03076

GROW—Good Reading Opportunities for Whitefield, Ms. Iris Baird, Whitefield Elementary Schools, Whitefield, NH 03598

Building Children's Motivation to Read, Ms. Darlene Hendershot, New Amherst Middle School, Boston Road, Amherst, NH 03031

NEW JERSEY

The Dale Avenue Project: Performance Objective Curriculum for Pre-Kin-

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dergarten through Third Grade, Ms. Helen B. Hanson, Dale Avenue School, 21 Dale Ave., Paterson, NJ 07505

Individualized Language Arts: Diagnosis, Prescription, Evaluation, Ms. Jeanette Alder, Roosevelt School, Louisa Pl., Weekhawken, NJ 07087

LEM: Learning Experience Module, Ms. Eleanor Russo, Hackensack Public Schools, 355 State St., Hackensack, NJ 07601

Pollution Control Education Center, Mr. Charles Murphy, Union Township Board of Education, 2369 Morris Ave., Union, NJ 07083

SEE Specific Education of the Eye, Mr. Milton Knobler, Union Township Board of Education, 2369 Morris Ave., Union, NJ 07083

Academic Advancement Program, Mr. Joseph Dempsey, Morris Public Schools, 40 Mills St., Morristown, NJ 07960

Institute for Political and Legal Education, Mr. Barry Lefkowitz, c/o Educational Improvement Center-South, Glassboro-Woodbury Road, Box 426, Pitman, NJ 08071

Glassboro's Right to Read Program, Mr. Nicholas Mitcho, Glassboro Board of Education, Bowle Blvd., Glassboro, NJ 08028

NEW YORK

Redesign for Mathematical Relevancy, Mr. Russell M. Waldron, 407 Fremont Road, Administration Building, E. Syracuse, NY 13057

Continuing Developmental and Remedial Reading Center, Ms. Wilma Volburg, Greenport Public Schools, Front Street, Greenport, NY 11944

NORTH CAROLINA

Language Arts in Action, Dr. Barbara Tapscott, Burlington City Schools, Box 9382, Burlington, NC 27215

Mastering the Techniques of Individualizing, Miss Frances M. Huffman, Burke County Schools, Drexel Elementary School, Box 488, Drexel, NC 28619

Management of a Developmental Reading Program, Mr. C.C. Knotts, Jr., Scotland County Schools, Box 272, Laurinburg, NC 28352

NORTH DAKOTA

Remediate Underachievers Now, Dr. Lowell Latimer, Minot Public Schools, Minot, ND 58701

Interdisciplinary Approach to Individualized Corrective Programs for Disabled Readers, Mr. Bob Muhs, Towner, ND 58788

Reading Basic Skills, Dr. Glenn Melvey, Fargo Public Schools, 1104 2nd Avenue, Fargo, ND 58102

Measurable Extensions to Reading, Mr. Charles Cheney, West Fargo Public Schools, 207 West Main, West Fargo, ND 58078

OKLAHOMA

Reading Readiness and Improvement, Dr. Lloyd Kutch, Woodward Schools, Box 668, Woodward, OK 73127

OREGON

A Systems Approach to Individualized Instruction, W. Dale Fallow, Principal, Manzanita Elementary, 310 San Francisco, Grants Pass, OR 97526

Helping Eliminate Early Learning Disabilities, Mr. William Brewster, 451 N. 2nd, Central Point, OR 97501

Staffing to Develop Human Potential, Mr. Kent Myers, 2455 S.W. Country Club Road, Lake Oswego, OR 97034

Mastery Learning Project, Mr. Dick Phillips, 4444 S.E. Lake Road, Milwaukie, OR 97222

Reading Disability Prevention for Five Year Olds, Mr. John Bucknum, Area I Administration, 6318 S.W. Corbett, Portland, OR 97201

Reading Power for Madison Students, Madison High School, 2735 N.E. 82nd, Portland, OR 97220

Symbolic and Innovative Language Systems, Ms. Ruth Peets, 220 N.E. Beech, Portland, OR 97201

PENNSYLVANIA

Samson L. Freedman School of Humanities, Dr. Bernard G. Kelner, School District of Philadelphia, 21st Street and the Parkway, Philadelphia, PA 19103

Secondary School Renewal, Mr. Thomas C. Rosica, School District of Philadelphia, 21st Street and the Parkway, Philadelphia, PA 19103

Tioga Specialized Learning Center, Ms. Margie Brown, School District of Philadelphia, 21st Street and the Parkway, Philadelphia, PA 19103

SOUTH CAROLINA

Individualizing Instruction: Placing Learning Ahead of Teaching, Mrs. Louise Scott, 109 West Pine St., Florence, SC 29501

Project RISE, Mrs. Sara Strickland, P.O. Box 439, Anderson, SC 29621

Project COPE, Mr. Lloyd Voyles, 515 Berea Dr., Greenville, SC 29611

Differentiated Teaching: A Diagnostic Approach, Mrs. Mary DuVal, DuBose Court, Camden, SC 29020

Prescribed Learning According to Needs (PLAN), Mr. William P. Stubbs, 141 Main St., Chesterfield, SC 29709

A Student Success Algorithm, Mrs. Bobbie McEntire, 6831 Brookfield Rd., Columbia, SC 29206

Alternatives to Prevent Dropouts, Mrs. Mary B. DuVal, DuBose Court, Camden, SC 29020

A Systematic Approach to Individualization, Ms. Amanda Singleton, Waccamaw Elementary School, Conway, SC 29526

Dropout Prevention: Scientific Heuristic Approach, Mrs. Jane Edwards, 6831 Brookfield Rd., Columbia, SC 29206

SOUTH DAKOTA

Progressive Choice Reading Program, Mr. Henry Hauck, Special Education, Sioux Falls Independent School District #1, 201 East 38th Street, Sioux Falls, SD 57105

TENNESSEE

Basic Skills Through Practical Arts, Mr. Clayton R. Haynes, 417 South College St., Covington, TN 38019

Teaching Reading Auditory Perception Skills, Mr. Richard L. Johnson and Nellie Howell, 160 South Hollywood, Memphis, TN 38112

Upper Cumberland Cooperative Reading System, Mr. Keith A. Nicholson, TTU, Box 5233, Cookeville, TN 38501

UTAH

U-SAIL Project, Dr. Carma Hales, 1421 South 2200, Salt Lake City, UT 84108

VERMONT

Meters, Liters and Grams, Ms. June Elliott, Waterford Elementary School, Waterford, VT

The Challenge Program, Mr. David Britten, Champlain Valley Union High School, Hinesburg, VT 05461

Creative Experiences for Improved Writing Skills, Ms. Cathy Hamblett, Woodstock Union High School, Woodstock, VT 05089

Experimental Mathematics Laboratory, Mr. John Muzzey, East Burke School, East Burke, VT 05832

Fundamental Reading, Ms. Lillian Flanagan, St. Albans City Elementary School, St. Albans, VT 05478

Rhymes and Reasons for Reading, Ms. Marilyn Stetson, Monkton Central School, Monkton, VT 05469

An Elementary School Uses a Computer, Mr. Albert Oglesby, Grafton Elementary School, Grafton, VT 05146

Demonstration Model for Educationally Disadvantaged, Ms. Kathy Blair, Barton Elementary School, Barton, VT 05822

VIRGINIA

Project Personalized Mathematics Instruction, Mrs. Florence Meador, 1612 Wadsworth St., Radford, VA 24141

Reading Education Accountability Design

BEST COPY AVAILABLE

(READ), Mr. Leigh Griffin, P.O. Box 1549, Suffolk, VA 23434

WASHINGTON

Communication Versatility—Language Arts, Mr. Leo V. Gaume, Principal, Elmhurst Elementary School, 420 East 133rd Street, Tacoma, WA 98445

Monroe Parents and the School Reading Program, Mr. Eugene V. Elledge, Monroe School District, West Columbia, Monroe, WA 98272

Managing Math by Objectives (MAMBO), Mr. Bill Conley, Fern Hill Elementary School, 8442 South Park Avenue, Tacoma, WA 98401

Help One Student to Succeed (HOSTS), Mr. Bill Gibbons, McLoughlin Junior High School, 5802 MacArthur Boulevard, Vancouver, WA 98661

Oral History, Mr. Elton Fenno, Walla Walla School District, 364 South Park, Walla Walla, WA 99362

Integrated Communications Laboratory, Mr. James Allison, Yakima School District, 104 North 4th Avenue, Yakima, WA 98902

WEST VIRGINIA

Basic Skills-Oriented Learning Packages, Mr. Robert Kittle, Kanawha County Schools, 200 Elizabeth Street, Charleston, WV 25311

WISCONSIN

Computer Assisted Reading Instruction for Children with Exceptional Educational Needs, Mr. Richard Hentschel, S.E.I.M.C., Route 2, Box 102, Onalaska, WI 54650

Planning Project to Develop Computer Assisted Instruction Program in Mathematics and Science, Mr. Wayne H. Stahlkopf, LaFarge Public Schools, LaFarge, WI 54639

Development of a Model for Teaching Language Skills to Handicapped Children, Ms. Sara Pollak, Madison Public Schools, 545 West Dayton Street, Madison, WI 53703

PROJECT READER—Redesigning Educational Activities to Develop Effective Readers, Ms. Karen Kinyon, Manitowoc Public Schools, 1514 South 14th Street, Manitowoc, WI 54220

Improving Reading Literacy Through Literature for Primary Children, Mr. Melvin Yanow, Milwaukee Public Schools, 5225 West Vliet Street, P.O. Drawer 10K, Milwaukee, WI 53201

STARR (Students Are Reading Right), Ms. Margarete Dix, 749 Chestnut Street, Neenah, WI 54956

Reading As Each Adolescent Desires (READ), Ms. Florence Bergseth, Jo. District #1, City of Rice Lake, 204 Cameron Road, Rice Lake, WI 54868

Providing Optimal Learning Environment for Reluctant and Unsuccessful Readers, Ms. Elinore Jenkins, Richland Public Schools, 176 South Park Street, Richland Center, WI 53581

Project READ: Reading Expectancy and Achievement Demonstrated (Early Childhood Project), Mr. Robert Schramm, CESA #13, 908 West Main Street, Waupun, WI 53963

WYOMING

Wyoming Model Mathematics Laboratory, Mr. David Flory, School District #25, Riverton, WY 82002

BUREAU OF INDIAN AFFAIRS

Language Arts Improvement Via Typing Laboratory, Mr. R.E. Fitzgerald, c/o Seneca Indian School, Wyandotte, OK 74370

AMERICAN SAMOA

Project READ, Mr. Ivan Propst, Department of Education, Pago Pago, American Samoa 96799

PUERTO RICO

Correction of Learning Deficiencies in Mathematics Through a System of Individualized Instruction, Mr. Jesus Vega Martinez, Superintendent of Schools, Humacao, PR

Laboratory for Remedial Mathematics, Mr. Jose A. Ponce Moran, Superintendent of Schools, Coamo, PR

Curriculum for the Prevention and Remediation of Learning Difficulties in Mathematics in the First to Fourth Grades, Mr. Angel M. Arzon Mendez, Superintendent of Schools, Loiza, PR

Develop, Intensity and Reinforce Comprehension and Interpretation Skills Through an Individualized Reading Program, Mr. Jose M. Sanchez Torres, Superintendent of Schools, Ciales, PR

TRUST TERRITORY OF THE PACIFIC

Micronesian Mathematics Project, Mr. Juan T. Barera, Headquarters Education, Saipan, Mariana Islands 96950

Rota Bilingual Education Project, Ms. Lydia Taisacan, Tora School, Songsong Village, Rota, Mariana Islands 96951

Tomilant Yap Bilingual Education Project, Mr. Gary E. Smith, District Department of Education, Yap, Colonia, Yap, Western Caroline Islands 96943

Project PACIFIC (Pacific Area Consortium in Facilitating Improved Education), Mr. Joe C. Rice, Headquarters Education, Saipan, Mariana Islands 96950

GUAM

Pacific Area Consortium in Facilitating Improved Communication (PACIFIC), Mrs. Candelaria Rios, Principal, C. L. Taitano Elementary School, Department of Education, P.O. Box DE, Agana, Guam 96910